

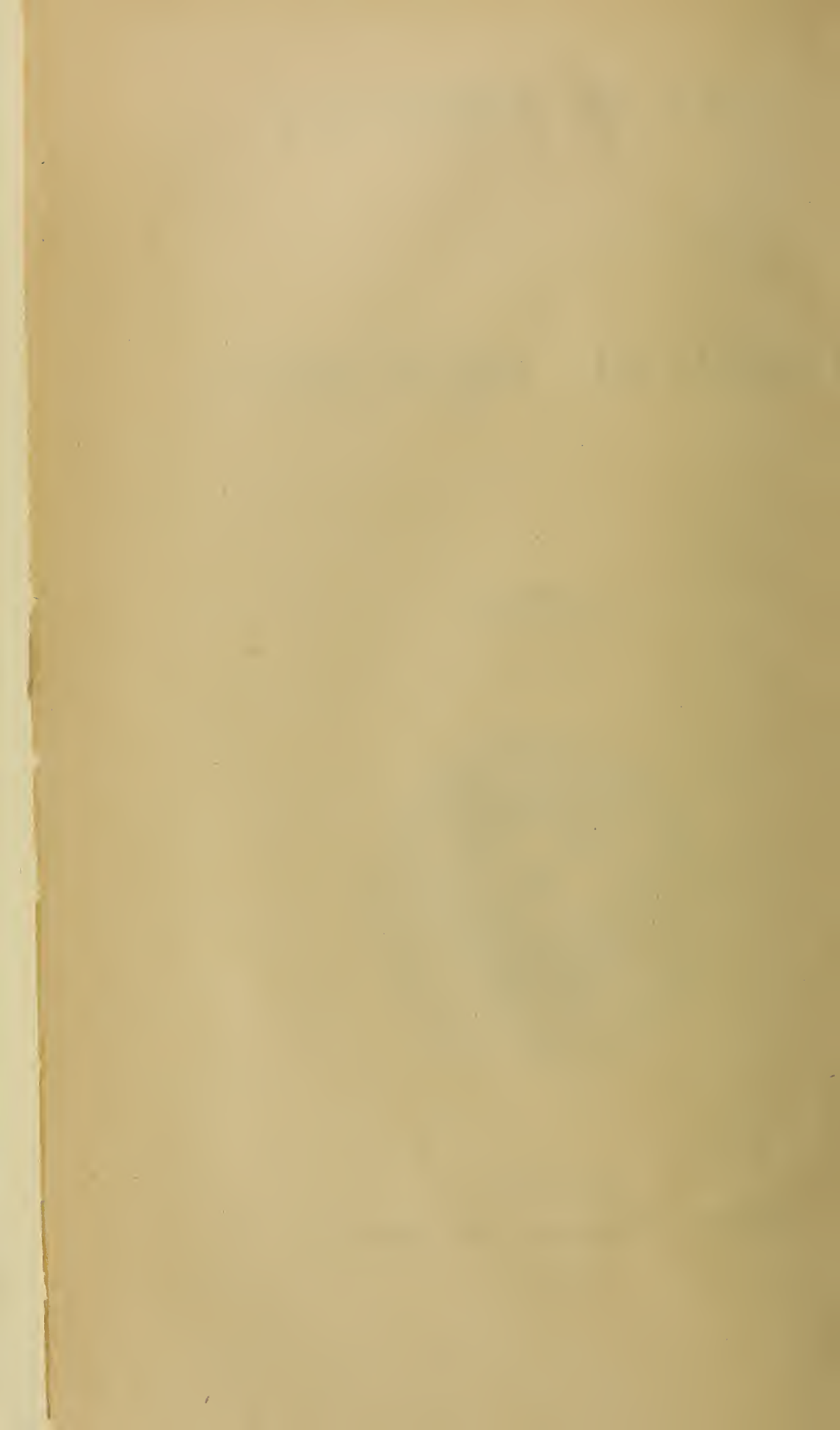
CITY OF SOMERVILLE
ANNUAL REPORTS.

1888.



BOSTON:
CASHMAN, KEATING & CO., PRINTERS.

1889.



CITY GOVERNMENT AND OFFICERS FOR 1888.

MAYOR.

MARK F. BURNS.

Residence, 61 Mt. Vernon Street; office, City Hall.

ALDERMEN.

BERNARD W. LAWRENCE, *President*.

WARD ONE.

NATHAN H. REED	Florence Street.
GEORGE D. WEMYSS	Austin Street.

WARD TWO.

CHARLES L. NORTH	High Street.
TIMOTHY C. DWYER	Somerville Avenue.

WARD THREE.

JOHN F. KENNARD	Howe Street.
ROBERT DUDDY	Bond Street.

WARD FOUR.

BERNARD W. LAWRENCE	Holland Street.
EDWARD H. BRADSHAW	Central Street.

CLERK OF BOARD OF ALDERMEN.

CHARLES E. GILMAN (deceased Feb. 22).

GEORGE I. VINCENT (elected Feb. 28).

COMMON COUNCIL.

GEORGE O. PROCTOR, *President*.

WARD ONE.

GEORGE M. STARBIRD	.	.	.	.	Pearl Street.
CHARLES M. HEMENWAY	.	.	.	.	Perkins Street.
CHARLES B. SANBORN	.	.	.	.	Austin Street.
BYRON L. FRENCH	.	.	.	.	Florence Street.

WARD TWO.

PATRICK F. DEADY	.	.	.	.	Oak Street.
JOHN W. MACDONALD	.	.	.	.	High Street.
JEREMIAH J. LYONS	.	.	.	.	Washington Street.
LYMAN H. BROWN	.	.	.	.	Somerville Avenue.

WARD THREE.

EDWARD O'BRIEN	.	.	.	.	Lowell Street.
EZRA D. SOUTHER	.	.	.	.	Pembroke Street.
MARTIN L. KING	.	.	.	.	Cross Street.
ALVANO T. NICKERSON	.	.	.	.	Broadway.

WARD FOUR.

GEORGE O. PROCTOR	.	.	.	.	Spring Street.
ALBERT W. EDMANDS	.	.	.	.	Summer Street.
CHARLES F. BERTWELL	.	.	.	.	Broadway.
JOSEPH CUMMINGS	.	.	.	.	Broadway.

CLERK OF COMMON COUNCIL.

CHARLES S. ROBERTSON.

JOINT STANDING COMMITTEES FOR 1888.

ACCOUNTS.—Aldermen North, Duddy; Councilmen King, Edmands, Lyons.

CITY ENGINEERING.—Aldermen Reed, North; Councilmen Starbird, O'Brien, Nickerson.

CLAIMS.—His Honor the Mayor; Aldermen Wemyss; the President of the Common Council; Councilmen Hemenway, Cummings.

FINANCE.—His Honor the Mayor; Aldermen Wemyss, Bradshaw; the President of the Common Council; Councilmen Souther, Hemenway, Deady, Cummings.

FIRE DEPARTMENT.—Aldermen Lawrence, Kennard; Councilmen Macdonald, Bertwell, Sanborn.

FUEL AND STREET LIGHTS.—Aldermen Dwyer, Reed; Councilmen King, French, Edmands.

HIGHWAYS.—Aldermen Reed, Bradshaw; Councilmen O'Brien, Starbird, Brown.

LEGISLATIVE MATTERS.—His Honor the Mayor; Alderman Bradshaw; the President of the Common Council; Councilmen Cummings, Deady.

ORDINANCES.—Aldermen Wemyss, Lawrence; Councilmen Hemenway, Souther, Bertwell.

PRINTING.—Aldermen Kennard, Lawrence; Councilmen King, Sanborn, Edmands.

PUBLIC GROUNDS.—Aldermen Kennard, Reed; Councilmen Macdonald, Nickerson, French.

PUBLIC PROPERTY.—Aldermen Duddy, Wemyss; Councilmen Starbird, Nickerson, Lyons.

SOLDIERS' RELIEF.—Aldermen Reed, North; Councilmen O'Brien, Sanborn, Lyons.

WATER.—Aldermen Bradshaw, Dwyer; the President of the Common Council; Councilmen Souther, Brown.

COMMITTEES OF THE BOARD OF ALDERMEN.

STANDING COMMITTEES.

ELECTIONS.—Aldermen Lawrence, North.

ENROLLED ORDINANCES.—Aldermen Duddy, Dwyer.

LICENSES.—Aldermen Lawrence, Duddy.

POLICE.—His Honor the Mayor; Aldermen Dwyer, Wemyss.

SEWERS.—Aldermen North, Lawrence, Kennard.

STATE AID.—Aldermen Bradshaw, Dwyer, Duddy, North.

SPECIAL COMMITTEE.

BUILDING PERMITS.—Aldermen Reed, Lawrence.

STANDING COMMITTEES OF THE COMMON COUNCIL.

ELECTIONS AND RETURNS.—Councilmen Deady, Macdonald, Bertwell.

ENROLLED ORDINANCES AND RESOLUTIONS.—Councilmen Souther, French, Brown.

SCHOOL COMMITTEE.

MARK F. BURNS, Mayor, Chairman, *ex officio*.

GEORGE O. PROCTOR, President of the Common Council, *ex officio*.

(Term, three years.)

WARD ONE.

S. NEWTON CUTLER (elected 1885) . Pearl Street.
 HORACE C. WHITE, M. D. (elected 1886) . Arlington Street.
 HORACE P. HEMENWAY, M. D. (elected 1887) Perkins Street.

WARD TWO.

ALPHONSO H. CARVILL, M.D. (elected 1885) Bow Street.
 JAMES F. BEARD (elected 1886) . Prospect Hill Av.
 CHARLES I. SHEPARD (elected 1887) . High Street.

WARD THREE.

NORMAN W. BINGHAM (elected 1885) . School Street.
 QUINCY E. DICKERMAN (elected 1886) . Central Street.
 WILLIAM P. HILL (elected 1887) . Sycamore Street.

WARD FOUR.

MARTIN W. CARR (elected 1887) . Craigie Street.
 Prof. BENJAMIN G. BROWN (elected 1885) Professors' Row.
 HORACE P. MAKECHNIE, M. D. (elected
 1886) . Elm Street.
Secretary, JOSHUA H. DAVIS . Myrtle Street.
Superintendent of Schools, JOSHUA H. DAVIS to May 1.

CLARENCE E. MELENEY from May 1.

PRINCIPAL ASSESSORS.

(Term, three years.)

STILLMAN H. LIBBY (elected 1886), <i>Chairman</i>	Elm Street.
GEORGE W. HADLEY (elected 1888)	Perkins Street.
BENJAMIN F. THOMPSON (elected 1887)	Summit Avenue.

ASSISTANT ASSESSORS.

(Term, one year.)

GEORGE W. BARTLETT, Ward One	Mt. Vernon Street.
DEXTER F. BENNETT, Ward Two	Washington Street.
HIRAM D. SMITH, Ward Three	Cross Street.
SAMUEL T. RICHARDS, Ward Four	Summer Street.

BOARD OF HEALTH.

(Term, Physician, three years; other members, two years.)

THOMAS M. DURELL, M. D. (appointed 1888), <i>Chairman</i>	Office, Police Building.
J. FRANK WELLINGTON (appointed 1887),	Vinal Avenue.
CHARLES H. CRANE (appointed 1888), <i>Clerk</i> , GEORGE I. VINCENT	Webster Street. Office, City Hall.
<i>Inspector</i> , WILLIAM H. BRINE (to May 14),	40 Houghton Street.
CALEB A. PAGE (from May 14),	Webster Avenue.

COMMISSIONERS OF THE SINKING FUNDS.

(Term, three years.)

HENRY F. WOODS (elected 1888)	Sycamore Street.
CHRISTOPHER E. RYMES (elected 1887 for unexpired term)	Summer Street.
JOHN F. NICKERSON (elected 1887 for unexpired term)	Flint Street.
<i>Treasurer</i> , AARON SARGENT,	Broadway.

OVERSEERS OF THE POOR.

MARK F. BURNS, *Mayor, Chairman, ex officio.*

(Term, four years.)

HERBERT E. HILL (elected 1886) . . . Mt. Vernon Street.

CHARLES G. BRETT (elected 1885) . . . Hall Street.

EDWARD B. WEST (elected 1888 for unex-
pired term) Prescott Street.

DANIEL C. STILLSON (elected 1888) . . . Tennyson Street.

Agent, CHARLES C. FOLSOM, Office, Police Building, Bow Street.

Secretary, FRANK W. KAAAN, Office, Police Building, Bow Street.

REGISTRARS OF VOTERS.

CHARLES E. GILMAN, *City Clerk* (deceased Feb. 22).

GEORGE I. VINCENT, *City Clerk* (elected Feb. 28).

(Term, three years.)

CROMWELL G. ROWELL, *Chairman* (appointed 1888).

SAMUEL G. A. TWYXCROSS (appointed 1886).

OTIS M. CURRIER (appointed 1887).

SOMERVILLE MYSTIC WATER BOARD.

(Term, one year.)

J. ORLIN HAYDEN, *President* . . . Hill Building, Union Square.

WALTER S. BARNES Highland Avenue.

JOHN B. VIAL Webster Street.

ADNA C. WINNING Fremont Street.

RICHARD DOWD Charles Street.

Clerk, FREDERIC W. STONE.

Superintendent of Water-Works, NATHANIEL DENNETT.

Office, Prospect Street, corner Somerville Avenue.

TRUSTEES OF THE PUBLIC LIBRARY.

(Term, three years.)

CHARLES S. LINCOLN (elected 1888), *President*, Laurel Street.
 CHARLES G. POPE (elected 1888) . . . Summit Avenue.
 J. HENRY FLITNER (elected 1886), *Secretary* . . . Day Street.
 GEORGE A. BRUCE (elected 1886) . . . Highland Avenue.
 WILLIAM E. WELD (elected 1887) . . . Harvard Street.
 JAMES E. WHITAKER (elected 1887) . . . Sycamore Street.
 WILLIAM H. BRINE (elected 1886) . . . Highland Avenue.
 SANFORD HANSCOM, M.D. (elected 1887). Webster Street.
 CHRISTOPHER E. RYMES (elected 1888) . Summer Street.

Librarian, HARRIET A. ADAMS.

CITY CLERK AND CLERK OF BOARD OF ALDERMEN.

CHARLES E. GILMAN (deceased Feb. 22). Office, City Hall.
 GEORGE I. VINCENT (elected Feb. 28).

CITY TREASURER AND COLLECTOR OF TAXES.

JOHN F. COLE. Office, City Hall.

CITY MESSENGER.

JAIRUS MANN. Office, City Hall.

CITY SOLICITOR.

SELWYN Z. BOWMAN. Office, 23 Court Street, Boston.

CITY AUDITOR.

DOUGLAS FRAZAR. Office, City Hall.

CITY ENGINEER.

HORACE L. EATON. Office, City Hall.

SUPERINTENDENT OF STREETS.

FRANK G. WILLIAMS, Albion Street. Office, City Hall.

SUPERINTENDENT OF PUBLIC BUILDINGS AND LIGHTS.

THOMAS R. ROULSTONE. Office, City Hall.

SUPERINTENDENT OF TELEGRAPH AND TELEPHONE LINES.

JAMES R. HOPKINS, Summit Avenue.

CHIEF OF POLICE.

MELVILLE C. PARKHURST, Police Station, Bow Street.

CHIEF ENGINEER OF FIRE DEPARTMENT.

JAMES R. HOPKINS. Office, Engine House, Highland Avenue.

INSPECTOR OF BUILDINGS.

JAMES R. HOPKINS, Summit Avenue.

INSPECTOR OF MILK AND VINEGAR.

THOMAS CUNNINGHAM, Oak Street.

CITY PHYSICIAN.

THOMAS M. DURELL, M. D., 14 Bow Street.

CLERK OF ASSESSORS AND COMMITTEES.

GEORGE I. VINCENT. Office, City Hall.

ASSISTANT CLERK OF ASSESSORS AND COMMITTEES.

WILLIAM P. MITCHELL. Office, City Hall.

CONSTABLES.

JAIRUS MANN.	WM. H. BRINE (Houghton St.).
ROBERT R. PERRY.	WILLIAM D. HAYDEN.
CHARLES C. FOLSOM.	SAMUEL R. DOW.
EDWARD MCGARR.	JOSEPH J. GILES.
CHRISTOPHER C. CAVANAGH.	GEORGE CULLIS.

FENCE VIEWERS.

DAVID A. SANBORN.	CHARLES D. ELLIOT.
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FIELD DRIVERS.

JOHN E. FULLER.	DENNIS KELLY.
JUDSON W. OLIVER.	CHARLES S. THRASHER.
PATRICK BENCH.	GEORGE W. BEAN.
HUBERT H. MILLER.	CHARLES L. ELLIS.

JAMES F. FOLEY.

POUND KEEPER.

CHARLES A. SMALL.

SEALER OF WEIGHTS AND MEASURES.

AMMIEL COLMAN, 34 Marshall Street.

MEASURER OF WOOD AND BARK.

SAMUEL T. LITTLEFIELD.

WEIGHERS OF COAL.

J. C. COUSINS.

D. W. DANFORTH.

MEASURER OF GRAIN.

JOHN C. CRAIG.

UNDERTAKERS.

WM. A. FLAHERTY. P. H. RAFFERTY. PATRICK RAFFERTY.
EDWARD H. MARSH. THOMAS J. BARKER. HORACE D. RUNEY.
ALFRED E. MANN.

POLICE DEPARTMENT.

MELVILLE C. PARKHURST, *Chief*.

ROBERT R. PERRY, <i>Captain</i> .	SAMUEL R. DOW, <i>Sergeant</i> .
EDWARD MCGARR, <i>Sergeant</i> .	CHRIS'R C. CAVANAGH, <i>Serg't</i> .
JOHN E. FULLER.	P. W. SKINNER.
ALBION L. STAPLES.	SAMUEL A. BROWN.
JUDSON W. OLIVER.	JOHN HAFFORD.
GEORGE W. BEAN.	IVAN LAUGHTON.
GEORGE L. SMITH.	MYRON H. KINSLEY.
EDWARD M. CARTER.	GEORGE A. BODGE.
PATRICK J. BENCH.	DENNIS KELLY.
JOHN F. JOHNSON.	GEORGE H. CARLETON.
EUGENE A. CARTER.	HUBERT H. MILLER.
EDWARD E. HAMBLÉN.	FRANCIS A. PERKINS.
JAMES F. FOLEY.	CHARLES S. THRASHER.
CHARLES L. ELLIS.	WILLIAM H. JOHNSTON.
CHARLES E. WOODMAN.	

MELVILLE C. PARKHURST, *Lock-up Keeper*.

MEETINGS.

BOARD OF ALDERMEN.

Second and fourth Wednesday evenings of each month.

COMMON COUNCIL.

Thursday evenings following the second and fourth Wednesdays
of each month.

SCHOOL COMMITTEE.

Last Monday evening of each month.

MAYOR'S INAUGURAL ADDRESS.

CITY OF SOMERVILLE.

IN CONVENTION OF THE CITY COUNCIL, }
Jan. 2, 1888.

RESOLVED, That His Honor, the Mayor, be and is hereby requested to furnish the committee on printing with a copy of his Inaugural Address for publication.

Read twice and adopted.

CHARLES E. GILMAN, *City Clerk.*

INAUGURAL ADDRESS
OF
HON. MARK F. BURNS,

DELIVERED JAN. 2, 1888.

GENTLEMEN OF THE CITY COUNCIL:—

CONTRARY to my own expectations, I have been called upon for the fourth time to prepare and deliver the customary address at the inauguration of the new City Government. While not expecting or desiring to be called to this important duty, still I am not unmindful of the great honor conferred, nor ungrateful for the kind expression of the confidence reposed in me by my fellow-citizens. I am ready to join with you in promising to repay them, in part, for their kindness by giving them twelve months of honest, faithful service.

It should be remembered that an address of this kind is prepared, not for the purpose of entertaining those who may happen to hear it read, but for the sole purpose of giving the information which should be in the possession of every member of the City Council before he undertakes to legislate for the city; also, for the purpose of making such recommendations as may seem, under the circumstances, important. All financial statements should be absolutely correct.

Not only should the address furnish information for members of the City Council, but should, and it is supposed to, contain information interesting to all tax-payers and investors. It should be a ready reference, by means of which the financial condition of the city may be correctly and easily ascertained. For these reasons some of the tables contained in the inaugural address of last year are repeated.

FINANCES.

It appears by the forthcoming report of the Sinking Fund Commissioners that the sinking funds, Jan. 1, 1887, amounted to \$584,052.41, to which was added during the year, from contributions from the city and interest on investments, the sum of \$70,252.88, making the total amount of sinking funds now on hand \$654,305.29. Of this amount all but \$1,805.29, which is on deposit at the bank, is invested in Somerville City Bonds.

The funded debt of the city remains the same as it was Jan. 1, 1887, namely, \$1,525,000. If from this amount the sinking funds now on hand are taken it leaves the net funded debt, Jan. 1, 1888, \$870,694.71.

The unfunded liabilities are for temporary loans, \$170,000, and this amount is equalled by uncollected taxes, assessments, and accounts due.

The real estate in the city was valued last year at \$25,219,900; the personal property, \$2,251,900; total valuation, \$27,471,800. The tax rate was \$14.80 on each \$1,000, and, together with 8,862 polls assessed, brought \$424,309.14, the amount of the tax levy.

The following is the valuation, tax levy, and rate, each year, since 1876:—

YEAR.	VALUATION.	TAX LEVY.	RATE.
1876 . . .	\$26,573,400 . . .	\$504,745.24 . . .	\$18.60
1877 . . .	25,479,400 . . .	471,789.14 . . .	18.10
1878 . . .	20,976,900 . . .	409,497.10 . . .	19.00
1879 . . .	18,950,100 . . .	352,553.80 . . .	18.00
1880 . . .	20,458,100 . . .	402,927.71 . . .	19.10
1881 . . .	22,569,100 . . .	452,945.45 . . .	19.50
1882 . . .	23,162,200 . . .	425,721.16 . . .	17.80
1883 . . .	23,812,900 . . .	411,645.43 . . .	16.70
1884 . . .	24,331,100 . . .	418,750.26 . . .	16.60
1885 . . .	24,878,400 . . .	428,605.44 . . .	16.60
1886 . . .	26,003,200 . . .	416,987.28 . . .	15.40
1887 . . .	27,471,800 . . .	424,309.14 . . .	14.80

The funded debt reached its largest amount in 1876, and represented the amount borrowed for the following improvements, viz.:—

Public buildings, land, town debt, &c.	\$502,354
Public park	200,000
Street improvements	292,500
Sidewalks.	50,000
Sewers.	227,000
Water-works.	335,000
Total	<u>\$1,606,854</u>

Of this amount \$10,000 was paid in 1878, \$11,854 in 1879, and \$60,000 in 1885, leaving the funded debt, \$1,525,000, as before stated.

Somerville has fulfilled the provisions of the law, which was enacted by the Legislature of 1875. That law obliged us to "establish a sinking fund and contribute thereto from year to year an amount raised annually by taxation sufficient, with its accumulations, to extinguish the debt at maturity," or in twenty years from that time, except the water debt, which must be paid in thirty years. The contributions to that sinking fund, and assessments on each \$1,000 of the valuation necessary to meet it, have been as follows:—

Year.	Amount.	Rate per \$1000 of Valuation.
1876	\$45,130.62	\$1.70
1877	48,828.58	1.92
1878	51,004.64	2.43
1879	53,061.76	2.80
1880	55,739.35	2.72
1881	58,498.64	2.59
1882	61,390.59	2.65
1883	64,479.01	2.70
1884	67,719.33	2.78
1885	71,305.66	2.87
1886	66,894.23	2.57
1887	70,252.88	2.56

making the total amount contributed towards the final extinguishment of the debt, as provided for by the Act of 1875, \$714,305.29, and the average tax rate for that purpose, \$2.52 on a \$1,000 valuation. It will be seen by the foregoing figures that the requirements of the law regulating "Municipal indebtedness" have been rigidly complied with; but the burden it has imposed upon us has been heavy, and the rate of taxation largely increased in excess of that required to provide for our current expenses, and pay for the permanent improvements which are constantly being made. In my opinion, it is not necessary or

reasonable to ask that the debt be paid as rapidly as this, neither do I think it is in the interest of economy to do so. The reason why over \$700,000 has been raised by taxation for this purpose, and the annual tax rate increased over \$2.50 on the average during this time is because the law of 1875 required it. Considering the fact that the property of the citizens has been taxed to this extent during all these years to carry out the provisions of the law, and that the rate each year has been \$2.50 higher than it would have been had we not been obliged to provide for the payment of the debt, it must be acknowledged that the debt has been a burden, and the property of the citizens has been taxed so high as to materially impair our prosperity; and, furthermore, the city has been unable to make permanent improvements, which were very much desired, and in some cases absolutely necessary. The Legislature of 1887, recognizing these difficulties, passed a new law, giving Somerville certain privileges, among which are the following: It provides in the first place that it may apply its "existing sinking funds, consisting wholly of its own bonds, and any accumulation of interest thereon, toward the payment of the existing funded debt." Our funded debt to-day is \$1,525,000. As we have in the sinking funds \$654,305.29, if we apply this sum toward paying off the debt, we shall only owe \$870,694.71, and instead of allowing everybody to think we owe \$1,525,000, we can publish to the world, what is a fact, that the debt of Somerville is only \$870,000. The same law provides that, after a portion of the debt is paid with the sinking funds now on hand, a new sinking fund shall be re-established, and contributions made thereto annually from the tax levy, which shall be sufficient, with its accumulations, to pay it in twenty years from the time when the existing bonds come due. Exactly the same course must be pursued with this new debt as was followed with the old. The only difference would be, the debt would be \$870,000 to start with, instead of \$1,571,854, as it was when the fund was first established, and the time for its payment some years longer, requiring us to set aside for the purpose some \$20,000 or \$25,000 instead of \$70,000, and making the tax rate \$1.50 lower each year. Shall the property be taxed \$2.50 on a \$1,000 or only \$1.00 on account of the city debt? Understand, that I have always advocated the policy of

paying as we go, and the reduction of the debt as fast as we are able ; but I am of the opinion that we are paying it faster than is necessary or wise, for reasons which were stated in the inaugural address of last year, and which are here repeated. As the debt was contracted for such improvements as will be more useful and valuable in future years than they are to-day, it seems just and proper for us to ask the tax-payers of the future to assist in paying for them. I believe it is right to distribute the debt among the years that receive the benefit. I know it may be said that each year brings its own burdens, and that the tax-payers of the future will have all they can do to provide for their own wants ; but this might also be said of the present. We are providing for present wants, paying a debt contracted years ago, and making permanent improvements, which will become more valuable as the city grows older. This we have done for twelve years ; but to do so we have been obliged to impose upon the tax-payers a rate of taxation so oppressive as to materially impair our prosperity. It was not expected by the Legislature that cities and towns would clear themselves entirely from debt, for the law allows them to borrow money on funded debt account to the amount of two and one-half per cent. of the valuation, so when a city's net debt is less than that amount it is allowed to increase its funded debt until it reaches that limit. Why should it be necessary to continue to pay each year so large an amount towards the debt, especially after the net debt falls below the amount we are allowed to owe ? It will be seen that if we fail to make any further contributions to the sinking funds we shall be able in 1895, when the debt is to be paid, to borrow, under the law, money enough to pay off the whole of it. In my opinion the laws limiting the rate of taxation and municipal indebtedness are all the legislation which is necessary upon this subject, and cities and towns could be safely left with these safeguards to manage their own municipal debt in their own way. If it is necessary to clear cities entirely from debt, or reduce it to a lower amount, the Legislature could reduce the limit. This, I think, it should and would do, as it has once done already.

It tends to a more economical administration of a city's affairs to keep its debt about up to the limit allowed by law. It would be impossible, as the history of Somerville will show, to

get an extravagant scheme through the City Council if the entire cost of the same must be put into the tax levy of that year. The right to borrow increases the desire and invites extravagance. Members of any City Council will be more careful in their expenditures if every dollar used must be provided for in their own tax levy, and they themselves held responsible for the tax rate. The rate should not be higher in Somerville than in Boston, Cambridge, or any other city. It seems very important that the tax on our property should be reduced. I think this should be our policy. It is a policy which, if adopted and continued for a few years, will so increase the value of property that we shall be able to make all necessary improvements without increasing the burden of taxation. I would not be understood as advising a parsimonious economy in the administration of the city's affairs, but would advise providing for the maintenance of the various departments in a decently liberal manner, and would not forget that our city is destined to become a very large and populous one, and we should, with wise forethought, look ahead and provide for her future needs.

We have not borrowed any money on funded debt account for twelve years, not because none was needed, but simply because the law did not allow us to. In getting along without borrowing, we have been obliged to impose a burden which was hard to bear, as will be seen by reference to the table of tax rates. It is true, the people do not complain now; but the reason they do not is not because the rate is low, but because it is lower than it has been.

The tax rate should not be over one and four tenths per cent. of the valuation, or \$14.00 on a thousand. The debt of Somerville is not large enough to give any one uneasiness. It should not be made a burden or allowed to interrupt our prosperity. It should be paid no faster than is required by law. The City Council can pay it as fast as it desires. We must by law pay a part of it each year. We can, as far as the law is concerned, pay the whole of it. The National Congress, and the people of this whole country, are beginning to see the folly of raising more money by taxation than is required for the support of the Government, and for the reduction of the national debt faster than the law requires. You will be called upon to decide how much

money shall be raised this year on account of the city debt. My recommendation is, that only so much be raised as will fulfil the conditions of the law of 1887, and that the provisions of that law be carried out by applying to the debt the existing sinking funds. If this is done, it will be proper, in my opinion, to provide for all expenses of the city, except for the extension of the water-works, in the annual tax levy.

If this recommendation does not appeal to your judgment, and you conclude to raise \$70,000 for the debt, as usual, I recommend that the amount which will be required for new school houses, almshouse, hose house, and such permanent improvements as may be absolutely necessary, be raised by issuing bonds of the city, payable in twenty years, and not by immediate taxation, for I am firmly convinced that the tax rate should be further reduced. This cannot be done by increasing the valuation put upon the property by the assessors, for they will, as the law requires, assess it for what they consider its real value, regardless of consequences to the tax rate. That this plan may be followed will be seen from the following statement: The net funded debt of the city, exclusive of the water debt, is \$615,000. By referring to the Public Statutes, Chapter 29, and the Acts and Resolves of 1885, Chapter 312, it will be seen that when the net municipal debt of a city falls below two and one-half per cent. of the average valuation for the three preceding years, it may increase the same until it reaches said limit. As the average valuation for the past three years is \$26,000,000, and two and one-half per cent. of this amount is \$650,000, we can, under the law, this year realize \$35,000 from the sale of bonds, and also an amount equal to whatever you see fit to place in the sinking funds from the tax levy of 1888. In other words, it will be legal to borrow \$35,000 in addition to the amount appropriated for sinking funds, if you desire to. To my mind, the objection to this plan is that improvements may be made and schemes put through which ought to be postponed until the city can better afford it; or never done at all. I am firmly convinced that the first-mentioned course is far preferable; it is safer and more economical, and I sincerely hope it will be adopted.

STREET LIGHTS.

There have been located during the past year seventy electric lights in the streets. It will cost to use these seventy lights this year, at the present price, \$9,450. By examining the annual reports, it will be seen that the amount to be expended for electric lights is more than has ever been used in maintaining the entire system of street lighting, or as much as it would cost to maintain five hundred additional gas lights. It will need for this department this year, with the lights that are now in use, an appropriation of \$17,000.

Realizing that the electric lights are furnished by a local company, that many of the stockholders are influential citizens, as well as personal friends, that it seems to be the desire of the people that the streets should be lighted in this way, and that local pride and ambition can be satisfied in no other, still duty obliges me to again caution the City Council not to go too fast in the matter of electric lights. It would seem that the city, as well as the company, ought to be satisfied for the present with the number already located.

Thus far the lights have not been entirely satisfactory, owing, it is supposed, to a lack of power to run the necessary machinery. This defect will soon be remedied, and, no doubt, the service will be satisfactory in every particular.

In regard to placing electric light, telegraph, and telephone poles in the streets, recent events would seem to show the importance of the views expressed in the inaugural address of last year, to which you are respectfully referred. It is true that the telephone poles in Medford and Linwood Streets are unusually large, but smaller ones may be objectionable to some. Property owners should have the right to object, and their wishes should be respected, if possible. The Board of Aldermen is not obliged to give away a valuable franchise to please any corporation or body of stockholders. It should not, in my opinion, locate an electric light or horse railroad, unless the city can afford it, and the public convenience and necessity require it.

FIRE DEPARTMENT.

There has been no increase of the fire apparatus, or of the manual force in this department, during the past year. Twenty-

six new fire hydrants have been put in, making 46 added in two years, and the total number in the city 367. The city of Boston has placed new hydrants on the main pipe which passes through this city, at our request, as has also the city of Cambridge on that portion of our territory which it supplies with water. They are post hydrants, and of the same size of those used by our city. This is a great improvement, and one which will be appreciated by every one interested in the department. The city is now so well supplied with hydrants that a special appropriation is no longer necessary.

The working force should be increased by the addition of a new hose company, to be located in the vicinity of the Middlesex Bleachery, of course requiring a new hose house.

The question of making this addition has been discussed in the City Council for two years; but the improvement has not yet been made, and for this delay the Mayor is undoubtedly responsible, as a majority of the members of the City Council seemed to favor it, but even the Mayor recognizes its importance and would recommend the addition. It is hoped that it can be done this year.

I would also recommend that the hose carriages now in use be exchanged for light wagons. Our heavy carriages, with reels, painted in high colors, with brass and silver-plated trimmings, are the relics of the volunteer system. The volunteer was proud of his machine and liked to have it shine. He loved to work on it and show it to his friends, but that time has gone by. The paid department does not join military processions or make displays in any way. The paid fireman is hired to work, and he wants handy and serviceable tools to work with. A wagon, with the necessary amount of hose and other fire implements, can be hauled as easily with one horse as the carriages now in use can be with two. It is evident that if the change is made there will be quite a saving in labor and money.

POLICE.

The police force was increased in 1887 by the addition of four men. It consists at present of one chief, one captain, three sergeants, and twenty-five patrolmen. This seems to be as large

a force as the city can afford at the present time, and it is in complete working order as far as discipline is concerned, and although excellent as far as it goes, it must be admitted that it is small.

It would be a great addition to the strength and efficiency of this department if it could have a signal service, such as is in use in Worcester, Lynn, or Boston. The first cost of such a service would be less than five thousand dollars, and the cost of maintenance very little. I am satisfied that it would be worth as much to the force as the addition of five men. It is hoped the present City Council will carefully investigate this subject, examine the different systems, and establish some one of them in our city.

WATER-WORKS.

For several years the cost of maintaining the water-works and the extension of the water mains have been charged to the same account. On account of the rapid increase of population, or the erection of new dwelling-houses, requiring an extension of the pipes, and the fact that the cement pipes which were first laid are worn out and often break, the expenses of this department have rapidly increased. The cost of maintenance in 1878 was \$6,376; in 1887 it was \$25,400. The amount received from the city of Boston on account of the water contract has increased from \$11,584.89 in 1878 to \$42,650.57 in 1887; over \$20,000 of this increase is owing to the new contract procured in 1886, and the balance to the increase of the number of those who use the water.

The cement pipe now in use must soon be replaced with iron pipe. Some streets have already been relaid, and others should be this year. For this purpose, and the ordinary cost of maintenance, all the money which can be spared from the tax levy will be required, without extending the mains. At the same time, the works must be extended to meet the improvements which are constantly being made, and to satisfy the just demands of those who require the water.

The only way that occurs to me to supply the demands of this department is to borrow the money which will be required for the extension of the water-works on funded debt account.

We have legislative authority to borrow \$55,000, in addition to that which has been borrowed heretofore, and I see no good reason for not taking advantage of it. The same argument is good now that controlled the authorities when the works were first put in. There is no good reason why all of the cost of constructing new works should be paid in one year. The cost of maintaining this department, as well as all other city departments, must all be paid this year; but we can distribute the amount required for permanent improvements, which will be as valuable to us in the future as they are to-day, over a large number of years, thereby giving us the benefits of these improvements immediately, without assuming too heavy a burden. I therefore recommend that the amount required for the extension of the water-works be borrowed on funded debt account.

SCHOOLS.

There are 108 public schools in the city, which are under the charge of 123 teachers. At present there are 375 scholars in the High School, 2,480 in the grammar schools, and 2,065 in the primary schools. The average daily attendance has been 4,878, an increase over last year of just 200. The amount expended in 1887 was for

School teachers' salaries	\$84,016 11
School contingent	15,900 00
School-house incidentals	13,633 93
School fuel	5,475 00
School-house — Ward 3	7,273 15
School-house — Ward 4	7,566 20
Total	<hr/> \$133,864 39

or \$26 for each of the 5,000 pupils who have attended the schools at some time during the year.

To support the schools it required over one third of the entire tax levy, or \$4.87 of the tax rate. It must be admitted that Somerville is very liberal in its expenditure for public schools.

The two school-houses, one on Lowell Street, in Ward Three, and one on Cherry Street, in Ward Four, which were begun in 1886, were completed in 1887. They are substantial and commodious buildings, well finished and furnished, and are thought,

by some, to be the best buildings for school purposes in the city. The cost of each, including land, was about \$15,000. Another similar building is very much needed in Ward Four.

No part of the city, however, is so poorly supplied with school buildings as the Prospect Hill District, which takes in the whole of Ward Two and a part of Ward One. This district, which contains two-fifths of all the school children in the city, has but one large grammar school building and one grammar master, while in the other districts there are four. In this district there are two thousand scholars, and one thousand or less in each of the others. In my opinion, when a locality contains one thousand pupils it should be made into a school district, the schools organized and placed in charge of a grammar master. I am not satisfied that justice is being done to the school children of Ward Two. The district should be divided, and another grammar school building of twelve rooms erected immediately. It seems to me we shall make a great mistake if we build another small school-house in this ward, as contemplated by the City Council of 1887. For further information upon the subject you are referred to the forthcoming report of the School Committee; and let me here remark that it is the duty of all members of the City Council to read carefully all reports of committees and boards, and note their recommendations.

To provide for the rapidly-increasing school population, we must soon make an addition to the High School Building. There are now 375 pupils attending the school, and by another year we shall be unable to accommodate those who will apply for admission. All of these buildings should be erected as soon as possible. It certainly is the duty of the City Council to provide suitable accommodations for the school children. They must be educated, let the cost be what it will. Our School Board is composed of interested and educated men,—men who are not only capable of organizing the schools and preparing a course of study, but who realize the importance of education. Physicians, ministers, lawyers, teachers, and business men find a place upon the School Committee, and, in conducting its affairs, it is natural that their experience in their own business should affect their actions. The minister or elocutionist is apt to feel that too little time is spent in teaching the pupil how to read properly; the architect or

engineer thinks more attention should be paid to drawing; the man who is proud, or ashamed, of his own hand-writing, would have more time spent in teaching penmanship, and the one who loves music thinks we cannot spend too much time or money in teaching the pupils how to sing; the merchant says more book-keeping; the mathematician says more arithmetic; the historian, more geography and history; while the member who has spent his whole life in study, and has graduated from high institutions of learning, insists upon thoroughness in all studies, believes in percentage, and would have perfect system, and every pupil ranked according to his scholarship. He believes that in the public schools, which are carried on at public expense, the foundation for a thorough education should be laid, although he knows, or ought to know, that nearly all of the scholars must leave school as soon as they are large enough to work, and begin to earn their own living. It seems clear to me that our aim should be to prepare every child for the duties of citizenship. They should pursue those studies that will best enable them to support themselves and those who will be dependent upon them. There are some, whose parents are wealthy, who spend more time in procuring an education. How far the authorities are justified in carrying this latter class, at the public expense, is a question that is now agitating the minds of thinking men. Another great question is whether or not the most useful branches, taking everything into consideration, are taught in the public schools. It may seem to some that the time has come when the School Committee should consider the question, whether or not it is our duty to teach children how to work as well as how to read. Should not the girls be taught to sew, and the boys to use the axe and the hammer? These questions will be considered by the committee during the year; they are careful, able men who are interested in the schools and in the city. No doubt they will secure the best results from their expenditures. In my opinion, as every parent is obliged to contribute his share toward the support of public schools, no branches should be taught except those which will be of substantial benefit to every single scholar. Property should not be taxed to educate in the higher branches the children of wealthy people.

POOR.

The appropriation for the support of the poor was \$14,000 in 1887, and less than \$12,000 was expended. The Board of Overseers are certainly entitled to the gratitude of the people for the careful and business-like manner in which their duties are performed. Great credit is also due to the agent of the board. Your attention is again called to the necessity of an almshouse. We are now supporting at least thirty paupers who are fit subjects for an almshouse. Some of these are now boarded in private families, some in state institutions, and some in almshouses which belong to other cities or towns. It is our duty to know absolutely that the unfortunate poor are made comfortable. They must be properly clothed, have enough to eat, and be kept warm; they must be cared for when sick, and provided for when well. The only way to be sure of this is to keep them in our own house and have our own responsible agents look out for them. The recommendation of last year is renewed,—that an almshouse be built on the land on Broadway, owned by the city and known as the City Farm.

HIGHWAYS, SIDEWALKS, AND SEWERS.

Last year \$38,000 was expended on the highways. With this amount 7 1-10 miles of street have been graded, and 8,228 feet of edgestone set. Over \$22,000 was paid for labor.

Laying so much track by the Horse Railway Company caused the committee to grade some streets that otherwise would not have needed repairs for some time to come, and by reason of this increased expense they were obliged to neglect some which required attention. It is hoped that whoever has charge of this department this year will spend the appropriation in putting some of our old streets in good condition. In our anxiety to secure something new let us not neglect that which we already have.

The sidewalk appropriation was \$3,500, and the usual amount was laid.

Five thousand eight hundred and ninety-three and five-tenths feet, or one and one-tenth miles of sewers have been built during the past year, making the length of the system of public sewers

in the city forty and five-tenths miles. The entire cost of new construction the past year was \$8,711.86. Of this amount, \$6,226.92 has been assessed on abutters, and \$2,444.94 assumed by the city. The cost of the whole system up to the present time is nearly \$750,000.

CITY HALL AND PUBLIC GROUNDS.

In 1887, \$6,720 was expended in grading and building walks on Central Hill. No doubt the residents in that vicinity, as well as all other citizens, are gratified with the result. The hill should be made more attractive, and can be by using a small amount of money. It should be grassed over, walks laid out, and shade trees planted to complete the improvement.

It is hoped that this City Council will also feel like completing the improvements on the City Hall. It should be done, and we are able to do it. You are respectfully requested to read what is said upon this subject in the inaugural address of 1886.

GENTLEMEN OF THE CITY COUNCIL:—

I have now spoken to you at some length on the financial condition of the city and its requirements, making some recommendations in connection therewith which seem to me to be very important, as they bear directly on the great question of taxation. I have also briefly stated to you some suggestions which occurred to me as necessary in connection with the various departments. It will be your privilege, if you think them of sufficient importance, to consider them as well as to investigate recommendations that those who elected you will be likely to make. In deciding these questions we shall not need the aid of the lobby-member, the politician, nor those who are financially interested in the particular matter which happens to be under discussion; but without their advice, after due deliberation and careful investigation, decide upon that course which will best advance the material interest of the city. It is more than likely that we shall not always be able to satisfy the demands or meet the expectations of our constituents, but this we can do: We can apply ourselves to the business in hand, and exercise our best judgment in deciding questions that affect the welfare of

the city. Remember that it is easier to spend a dollar than to save a cent. The man who points out the way to save a small sum is more useful than the one who shows how a large amount may be expended. The citizen who can advise how better results may be obtained, or how work may be more economically done, renders more valuable assistance than the one who always studies how the city's funds may be disposed of.

The valuable public servant is the one who takes the public business home to himself, considers himself personally responsible for every part of it, manages it exactly as though it was his own, and regards every tax bill and every assessment bill which he causes to be distributed as a demand for the payment of a just and honest debt. It is our business to know that it is a just and an honest one. We may feel at times that we shall not receive credit for the constant effort and application necessary to fulfil all of our obligations; but it is the only way in which a man can satisfy himself.

And now, gentlemen, I shall be ready at all times to co-operate with you in conducting the business of your departments, and you will allow me to expect to receive your assistance in conducting the affairs of mine. My experience teaches me that it is necessary for us all to work together, if we would meet the expectations of those who have selected us for these important positions. They evidently believe us to be honest, earnest, and capable. Let the records show at the end of the year that their confidence has not been misplaced.

REPORT

OF THE

TREASURER AND COLLECTOR OF TAXES.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 23, 1889.
Referred to committee on finance, and sent down for concurrence.
GEO. I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 23, 1889.
Referred to committee on finance in concurrence.
CHAS. S. ROBERTSON, *Clerk.*

IN COMMITTEE ON FINANCE, Feb. 8, 1889.

*To the City Council of Somerville:—*The committee on finance, to which was referred the annual report of the treasurer and collector of taxes for the year 1888, reports that the treasurer's books have been examined by this committee, and compared with the books of the auditor, also with the statements received from the several committees, boards, and officers of the city.

We have also verified the amount of cash on hand by actual count, and by the reports from the officers of the banks of deposit, and have discovered no errors.

The committee found that the books and accounts of the treasurer were kept in a neat and business-like manner. We, therefore, recommend that the report be accepted and printed in the annual reports for 1888.

CHARLES G. POPE,	}	<i>Committee.</i>
GEORGE D. WEMYSS,		
GEORGE A. KIMBALL,		
ALBERT W. EDMANDS,		
EDWIN A. WILCOX,		
L. ROGER WENTWORTH,		
WM. E. PULSIFER,		
WM. A. HUNNEWELL,		

IN BOARD OF ALDERMEN, Feb. 13, 1889.
Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.
Concurred in.
CHARLES S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

TREASURER'S OFFICE, Jan. 19, 1889.

To the Honorable the Mayor and City Council of the City of Somerville.

GENTLEMEN,—The undersigned presents herewith the seventeenth annual report of the financial condition of the city, and a statement showing in detail the receipts and disbursements of the several departments for the year ending Dec. 31, 1888.

The value of the property of the city, Dec. 31st, 1887, was \$1,265,281.05, and the accessions thereto during the year were as follows:—

Land on Concord Square	\$4,903.50
Water-Works extension	19,338.89

The lot of land on Bond Street, valued at \$2,500.00, having been sold during the year, leaves the value of the public property Dec. 31, 1888, as per Table A, \$1,287,023.44.

The funded debt of the city Dec. 31, 1888, as per Table B of the last annual report, was \$1,525,000.00.

Acting under the provisions of Ordinance No. 5, the Commissioners of the Sinking Funds on March 23, 1888, delivered to the city the entire amount of funds held by them for the payment of the debt at its maturity, consisting of bonds of the city, amounting to \$652,500.00 and \$1,812.66 in cash; in all, \$654,312.66.

There was appropriated and put into the tax levy the sum of \$35,187.34, making the total amount applied to the reduction of the funded debt

\$689,500 00

Leaving the net funded debt \$835,500 00

The only increase of the funded debt during the year was for the extension of the Water-Works; for which purpose the following bonds, bearing interest at four per cent., were issued:—

Water Loan Bonds, Nos. 278 to 290, \$1,000

each, payable annually 1889 to 1901, \$13,000

Water Loan Bonds, Nos. 291 to 302, \$1,000

each, payable annually, 1907 to 1918, 12,000

\$25,000 00

making the net funded debt Dec. 31, 1888, as will

more fully appear in Table B \$860,500 00

City Loan Bonds, Nos. 439 to 461 at 5 per cent int. 23,000 00

“ “ “ Nos. 467 to 507 at 4 per cent int. 41,000 00

Amounting to \$64,000 00

became due during the year, and to provide for the amount which the city was authorized to renew, the following new bonds, bearing interest at the rate of four per cent, were issued:—

City Loan Bonds, Nos. 887 to 909, payable July 1,

1894 23,000 00

City Loan Bonds, Nos. 910 to 913, payable July 1,

1897 4,000 00

Amounting to \$27,000 00

To provide for the payment of the State and county taxes, the reduction of the funded debt, and the expenses of the city for the year 1888, the assessors' warrant was received for the tax levy assessed upon the polls and estates of the inhabitants as follows, viz.:—

Real estate, valuation \$26,488,200 00

Personal property, valuation 2,277,200 00

Total valuation \$28,765,400 00

At a rate of \$14.00 on \$1,000 valuation

Amounting to 402,715 60

2,108 property polls.

7,263 single polls.

9,371 polls at \$2 each 18,742 00

2 polls (women) at \$0.50 each 1 00

Total amount of tax levy \$421,458 60

Received from the Commissioners of the Sinking	
Funds for the reduction of the funded debt	654,312 66
Received from the city of Boston for return on	
water contract on 1887 account	3,188 30
Received from the city of Boston for return on	
water contract on 1888 account	47,224 27
Received from all other sources	74,253 94
<hr/>	
making the total amount of resources for the year	
ending Dec. 31, 1888	\$1,200,437 77

The appropriations, credits, disbursements, and balances of the various accounts were as follows:—

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
City Hall Improvement:—			
Appropriation	\$3,000 00		
Expended			\$2,953 95
Unexpended balance			46 05
Fire Department:—			
Appropriation	27,000 00		
Received for old materials		\$100 33	
Expenditures			26,743 88
Unexpended balance			356 45
Health Department:—			
Appropriation	4,500 00		
Received for permits, licenses, etc.,		226 00	
Expenditures			5,024 21
Expended in excess of appropriation, etc.			298 21
Highways:—			
Appropriation	44,000 00		
Received for labor and materials		2,957 73	
Expenditures			46,606 05
Unexpended balance			351 68
Hose House in Ward Four:—			
Appropriation	10,000 00		
Expended			2,513 40
Balance to be expended in 1889			7,486 60

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Indigent Soldiers and Sailors: —			
Appropriation	\$500 00		
Received of State of Massachusetts,		\$508 50	
Expenditures			\$1,015 00
Expended in excess of appropriation			6 50
Interest: —			
Appropriation	30,000 00		
Received interest, corporation, and bank taxes, etc.		19,441 37	
Expended			48,527 50
Unexpended balance			913 87
Miscellaneous: —			
Appropriation . . . \$4,000 00			
Transferred to "School-house Incidentals" account	1,700 00		
	<hr/>		
	2,300 00		
Received for sale of land, costs, licenses, etc.		4,625 66	
Expenditures			6,880 98
Unexpended balance			44 68
Police: —			
Appropriation . . . \$30,000 00			
Transferred from "Police Signal System" account	825 94		
	<hr/>		
	30,825 94		
Received for court fees, fines, etc. .		3,210 89	
Expenditures			33,598 30
Unexpended balance			438 53
Police Signal System: —			
Appropriation . . . \$5,000 00			
Transferred to Police account	825 94		
	<hr/>		
	4,174 06		
Expended			4,174 06
Police Station Incidentals: —			
Appropriation	2,000 00		
Transferred from —			
"School House, Ward Three" account		349 07	
"Schoolhouse, Ward Four" account		204 45	
Received for rent		568 00	

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Police Station Incidentals — <i>Continued.</i>			
Expenditures			\$2,799 66
Unexpended balance			321 86
Public Library: —			
Appropriation	\$3,000 00		
Balance from 1887		\$1,012 17	
Received for dog licenses, fines, etc.		2,718 02	
Expenditures			6,743 13
Expended in excess of appropriation, etc.			12 94
Public Grounds: —			
Appropriation	6,000 00		
Expenditures			6,146 66
Expended in excess of appropriation			146 66
Printing and Stationery: —			
Appropriation	3,000 00		
Received for advertising, etc.		15 80	
Expenditures			3,673 75
Expended in excess of appropriation			657 95
Reduction of Funded Debt: —			
Appropriation	35,187 34		
Received from the Commissioners of the Sinking Funds		654,312 66	
Applied to the reduction of the funded debt			689,500 00
Salaries: —			
Appropriation	24,150 00		
Expended			23,145 61
Unexpended balance			1,004 39
School Contingent: —			
Appropriation	17,000 00		
Received for tuition of non-resident pupils	85 38		
Expenditures			17,851 60
Expended in excess of appropriation, etc.			766 22
School Fuel: —			
Appropriation	6,500 00		
Expended			7,121 24
Expended in excess of appropriation			621 24

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
School-house Incidentals: —			
Appropriation	\$10,000 00		
Transferred from Miscellaneous account	1,700 00		
Watering Streets account,	1,000 00		
	<hr/>		
	\$12,700 00		
Received for old materials, etc.		11 81	
Expenditures			13,993 75
Expended in excess of appropriation			1,281 94
School Teachers' Salaries: —			
Appropriation	40,000 00		
Received from "City of Boston Water Rates"		\$50,412 57	
Received unpaid salaries		\$7 50	
Expended			85,700 66
Unexpended balance			4,719 41
School-house in Ward Two: —			
Unexpended balance from 1887		4,177 55	
Expended for land, Concord Sq.			4,903 50
Expended in excess of appropriation			725 95
School-house in Ward Three: —			
Unexpended balance from 1887	\$395 11		
Transferred to Police Station Incidentals account	349 07		
	<hr/>		
		46 04	
Expended			46 04
School-house in Ward Four: —			
Unexpended balance from 1887	\$250 48		
Transferred to Police Station Incidentals account	204 45		
	<hr/>		
		46 03	
Expended			46 03
Sewers: —			
Appropriation	9,500 00		
Received for permits, etc.		243 87	
Expenditures			10,401 06
Expended in excess of appropriation			657 19

Accounts.	Appropriations.	Additional Credits.	Expenditures and Balances.
Sidewalks: —			
Appropriation	\$4,500 00		
Expended			\$3,708 04
Unexpended balance			791 96
Street Lights: —			
Appropriation	16,000 00		
Received for lamp-posts, etc.		\$53 00	
Expenditures			15,953 13
Unexpended balance			99 87
Support of Poor: —			
Appropriation	14,000 00		
Received for support of paupers		\$2,293 07	
Expenditures			\$13,373 98
Unexpended balance			2,919 09
Watering Streets: —			
Appropriation	\$3,500 00		
Transferred to School-house Incidentals account	1,000 00		
	<u>\$2,500 00</u>		
Received from abutters		5,710 46	
Expenditures			8,103 94
Unexpended balance			106 52
Water Maintenance: —			
Appropriation	19,000 00		
Received for labor, materials, etc.		641 24	
Expenditures			15,570 20
Unexpended balance			4,071 04
Water-Works Extension: —			
Appropriation by borrowing on Funded Debt account		25,000	
Expenditures			19,338 89
Balance to be expended in 1889,			5,661 11
County of Middlesex, County Tax: —			
Appropriation	16,906 92		
Expended			16,906 92
State of Massachusetts, State Tax: —			
Appropriation	30,127 50		
Expended			30,127 50

Accounts.	Appropriations.	Expenditures and Balances.
Overlay and Abatement: —		
Appropriation	3,086 84	
Abatements on taxes.		10,958 31
Abatements in excess of appropriation		7,871 47
	<u>\$421,458 60</u>	<u>\$778,979 17</u>
		<u>\$1,213,484 04</u>
Accounts overdrawn	13,046 27	
Credits from various sources	778,979 17	
	<u>\$1,213,484 04</u>	<u>\$1,213,484 04</u>
Appropriations: —		
As per tax levy	\$421,458 60	
Received of the Commissioners of the Sinking Funds	654,312 66	
Received of City of Boston for return on water rates	50,412 57	
Received from various sources	74,253 94	
Expenditures		\$1,197,298 64
Excess and deficiency account: —		
Unexpended balances	\$16,185 40	
Expended in excess of appropriations,	13,046 27	
Unexpended balance		3,139 13
Total	<u>\$1,200,437 77</u>	<u>\$1,200,437 77</u>

The assets of the city available for the payment of its unfunded liabilities are as follows: —

Taxes	\$151,226 08
Real-estate liens	335 58
State of Massachusetts, State aid	3,802 00
State of Massachusetts, indigent soldiers and sailors	495 50
Sidewalk assessments	2,093 17
Sewer assessments	6,908 87
Water service assessments	1,746 02
Cash	20,101 85
Total amount of available assets	<u>\$186,709 07</u>

The liabilities are : —

Temporary loans	\$170,000 00
Hose house in Ward Four	7,486 60
Overplus on tax sales	102 13
Sundry persons	320 10
Water-works extension	5,661 11
<hr/>	
Total amount of unfunded liabilities .	\$183,569 94
Excess of available assets over unfunded liabilities	3,139 13
<hr/>	
	\$186,709 07

The financial condition of the city, exclusive of its public property, is as follows : —

Funded debt, city loan	\$597,000 00
Funded debt, water loan	\$263,500 00
<hr/>	
Total funded debt	\$860,500 00
Excess of available assets over unfunded liabilities	3,139 13
<hr/>	
Leaving a net indebtedness, Dec. 31, 1888, of	\$857,360 87
Total cash receipts for the year, including a balance of \$3,136.53 from the year 1887 . .	1,614,212 28
Total cash disbursements	1,594,110 43
<hr/>	
Leaving in the treasury the sum of . .	\$20,101 85

A detailed statement of the public property, funded debt, and receipts and disbursements of the various accounts will appear in the appendix.

Respectfully submitted,

JOHN F. COLE,
Treasurer.

APPENDIX TO TREASURER AND COLLECTOR'S REPORT.

TABLE A.

PUBLIC PROPERTY, DEC. 31, 1888.

Central Hill land (12 acres, 27,920 feet)		\$100,000 00
City Hall	10,000 00	
Furniture	3,000 00	
		<hr/> 13,000 00
Public Library		8,500 00
Public Library building		28,338 45
Steam fire-engine house	\$10,000 00	
Furniture	500 00	
Steam fire-engine and apparatus	4,000 00	
Steam fire-engine, hose carriage, and apparatus	2,000 00	
		<hr/> 16,500 00
High School-house	\$40,000,00	
Furniture	3,500 00	
Philosophical apparatus	500 00	
		<hr/> 44,000 00
Prescott School-house, land (21,444 feet) and building	\$40,000 00	
Furniture	2,000 00	
		<hr/> 42,000 00
Luther V. Bell School-house, land (23,396 feet) and building	\$40,000 00	
Furniture	3,000 00	
		<hr/> 43,000 00
<i>Amount carried forward</i>		<hr/> \$295,338 45

<i>Amount brought forward,</i>	.	.	.	\$295,338 45
Forster School-house, land (27,499 feet) and building	.	.		\$37,922 24
Furniture	.	.	.	1,500 00
				<hr/>
				39,422 24
Morse School-house, land (29,109 feet) and building	.	.		\$25,000 00
Furniture	.	.	.	1,000 00
				<hr/>
				26,000 00
Highland School-house, land (23,260 feet) and building	.	.		\$32,000 00
Furniture	.	.	.	1,000 00
				<hr/>
				33,000 00
Lincoln School-house, land (17,662 feet) and building	.	.		\$14,742 17
Furniture	.	.	.	744 93
				<hr/>
				15,487 10
Prospect Hill School-house, land (25,313 feet) and building	.	.		\$20,000 00
Furniture	.	.	.	600 00
				<hr/>
				20,600 00
Jackson School-house, land (11,212 feet) and building	.	.		\$8,000 00
Furniture	.	.	.	300 00
				<hr/>
				8,300 00
Bennett School-house, land (20,560 feet) and building	.	.		\$8,000 00
Furniture	.	.	.	300 00
				<hr/>
				8,300 00
Webster School-house, land (11,050 feet) and building	.	.		\$8,000 00
Furniture	.	.	.	300 00
				<hr/>
				8,300 00
Union School-house, land (9,360 feet) and building	.	.		\$2,500 00
Furniture	.	.	.	100 00
				<hr/>
				2,600 00
Harvard School, land (9,810 feet) and building	.	.	.	\$2,500 00
Furniture	.	.	.	100 00
				<hr/>
				2,600 00
<i>Amount carried forward</i>	.	.	.	\$459,947 79

<i>Amount brought forward,</i>				\$459,947 79
Edgerly School-house, land (26,428 feet) and building		\$25,000 00		
Furniture		500 00		
				<hr/> 25,500 00
Edgerly School-house, addition		\$17,000 00		
Furniture		600 00		
				<hr/> 17,600 00
Brastow School-house, land (10,019 feet) and building		6,000 00		
Furniture		250 00		
				<hr/> 6,250 00
Franklin School-house, land (33,017 feet) and building		\$14,000 00		
Furniture		300 00		
				<hr/> 14,300 00
Beach Street School-house, land (6,000 feet) and building		\$4,500 00		
Furniture		250 00		
				<hr/> 4,750 00
Spring Hill School-house, land (4,991 feet) and building		\$1,600 00		
Furniture		100 00		
				<hr/> 1,700 00
Davis School-house, Tufts Street, land (29,584 feet) and building		\$17,606 22		
Furniture		726 99		
				<hr/> 18,333 21
Cummings School-house, School Street, land (11,300 feet) and building		\$14,643 21		
Furniture		714 16		
				<hr/> 15,357 37
Bingham School-house, Lowell Street, land (21,017 feet) and building		\$14,553 56		
Furniture		551 33		
				<hr/> 15,104 89
<i>Amount carried forward</i>				<hr/> \$578,843 26

<i>Amount brought forward</i>		\$578,843 26
Burns School-house, Cherry Street, land (16,080 feet) and building	\$14,662 40	
Furniture	587 12	
	<hr/>	15,249 52
City farm, land (10 acres, 12,523 feet)		30,000 00
Cedar Street School-house	\$700 00	
Furniture	100 00	
	<hr/>	800 00
City stables and dwelling-houses		7,000 00
Equipments for highway repairs		3,000 00
Watering-carts and sheds		2,300 00
No. 1 Hose-house, land (4,312 feet) and building	\$2,300 00	
Furniture	400 00	
John E. Wool hose-carriage and apparatus	2,000 00	
	<hr/>	4,700 00
No. 2 House-house, land (5,400 feet) and building	\$7,500 00	
Furniture	300 00	
Winter Hill hose-carriage and apparatus	2,000 00	
	<hr/>	9,800 00
No. 3 Hose-house, land (5,226 feet) and building	\$9,000 00	
Furniture	300 00	
George H. Foster hose-car- riage and apparatus	2,000 00	
R. A. Vinal hook-and-ladder truck and apparatus	3,400 00	
Prescott hook-and-ladder truck and apparatus	100 00	
	<hr/>	14,800 00
<i>Amount carried forward,</i>		\$666,492 78

<i>Amount brought forward</i>	.	.	.	\$666,492 78
No. 4 Hose-house, land (9,100 feet) and building	.	.	\$11,000 00	
Furniture	.	.	400 00	
George O. Brastow hose-carriage and apparatus	.	.	\$2,000 00	
Relief hose-carriage	.	.	600 00	
			<hr/>	14,000 00
Fire-alarm telegraph	.	.	.	15,800 00
Police-station, land (15,232 feet) and building (Bow Street)	.	.	\$40,000 00	
Furniture	.	.	3,000 00	
			<hr/>	43,000 00
Prospect Street, land (7,918 feet) and building	.	.	7,000 00	
Public Park (cost \$212,993.20)	.	.	.	125,000 00
Joy Street, land (2,960 feet)	.	.	.	500 00
Walnut Hill, land (10,890 feet)	.	.	.	1,000 00
Elm Street, land (18,000 feet)	.	.	.	3,600 00
Holland Street (5 acres, 6,806 feet)	.	.	.	12,000 00
Somerville Avenue (39,456 feet)	.	.	.	5,000 00
Gravel-land in Waltham (about 35 acres)	.	.	.	15,000 00
Gravel-land in Wakefield (about $1\frac{1}{3}$ acres)	.	.	.	5,000 00
Gravel-land in Winchester (about 2 acres)	.	.	.	500 00
Somerville water-works (cost \$361,947.65)	.	.	.	360,338 89
Oliver Street, land (63,069 feet)	.	.	.	7,500 00
Whipple Street, land, lots Nos. 30 and 31 (15,240 feet)	.	.	.	388 27
Concord Square (about 24,517 feet)	.	.	.	4,903 50
			<hr/>	
Total value of public property	.	.	.	\$1,287,023 44

TABLE B.
FUNDED DEBT, DEC. 31, 1888.

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
1881. Jan. 1.	Water.	57 to 65	5	1889. Jan. 1.	1,000	\$9,000
1888. July 1.	"	278	4	July 1.	1,000	1,000
1860. Oct. 1.	"	46 to 54	5	Oct. 1.	1,000	9,000
1884. Oct. 1.	City.	508 to 575	4	Oct. 1.	1,000	68,000
1888. July 1.	Water.	279	4	1890. July 1.	1,000	1,000
1880. Oct. 1.	"	55	5	Oct. 1.	9,000	9,000
1884. Oct. 1.	City.	576 to 646	4	Oct. 1.	1,000	71,000
1888. July 1.	Water.	280	4	1891. July 1.	1,000	1,000
1884. Oct. 1.	City.	647 to 720	4	Oct. 1.	1,000	74,000
1881. Jan. 1.	Water.	66 to 76	5	1892. Jan. 1.	1,000	11,000
1888. July 1.	"	281	4	July 1.	1,000	1,000
1881. Oct. 1.	"	78 to 88	5	Oct. 1.	1,000	11,000
1884. Oct. 1.	City.	721 to 798	4	Oct. 1.	1,000	78,000
1885. July 1.	"	856 to 880	4	1893. July 1.	1,000	25,000
1888. July 1.	Water.	282	4	July 1.	1,000	1,000
1885. Oct. 1.	"	89 to 99	5	Oct. 1.	1,000	11,000
1884. Oct. 1.	City.	799 to 852	4	Oct. 1.	1,000	54,000
1888. July 1.	Water.	283	4	1894. July 1.	1,000	1,000
July 1.	City.	887 to 909	4	July 1.	1,000	23,000
1881. Oct. 1.	Water.	100 to 111	5	Oct. 1.	1,000	12,000
<i>Amount carried forward</i>						\$471,000

TABLE B — *Continued.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
1888.	<i>Amount brought forward</i>		. . .	1895.	. . .	\$471,000
July 1.	Water.	284	4	July 1.	1,000	1,000
1876.						
Oct. 1.	City.	196 to 194	5	Oct. 1.	5,000	25,000
Oct. 1.	"	195 to 334	5	Oct. 1.	1,000	140,000
1883.						
July 1.	Water.	112 to 124	5	July 1.	1,000	13,000
1876.				1896.		
July 1.	Sewer.	1 to 7	5	July 1.	5,000	35,000
1882.						
July 1.	Water.	125 to 136	5	July 1.	1,000	12,000
July 1.	"	137	5	July 1.	500	500
1888.						
July 1.	"	285	4	July 1.	1,000	1,000
1882.				1897.		
July 1.	"	138 to 151	5	July 1.	1,000	14,000
1888.						
July 1.	"	286	4	July 1.	1,000	1,000
				1897.		
July 1.	City.	910 to 913	4	July 1.	1,000	4,000
1882.				1898.		
July 1.	Water.	152 to 166	5	July 1.	1,000	15,000
1888.						
July 1.	"	287	4	July 1.	1,000	1,000
1882.				1899.		
July 1.	"	167 to 181	5	July 1.	1,000	15,000
July 1.	"	182	5	July 1.	500	500
1888.						
July 1.	"	288	4	July 1.	1,000	1,000
1882.				1900.		
July 1.	"	183 to 194	5	July 1.	1,000	12,000
1882.						
July 1.	"	195	5	July 1.	500	500
1888.						
July 1.	"	289	4	July 1.	1,000	1,000
1884.						
Oct. 1.	"	200 to 202	4	Oct. 1.	1,000	3,000
1888.				1901.		
July 1.	"	290	4	July 1.	1,000	1,000
1884.						
Oct. 1.	"	203 to 212	4	Oct. 1.	1,000	10,000
1885.						
July 1.	"	214 to 219	4	July 1.	1,000	6,000
	<i>Amount carried forward</i>		. . .	. . .	. . .	\$783,500

TABLE B—*Concluded.*

Date.	Loan.	Number of Bonds.	Rate per cent. of Interest.	When due.	Denomination.	Amount.
1885.	<i>Amount brought forward</i>		. . .	1902.	. . .	\$783,500
July 1. 1886.	Water.	220 to 226	4	July 1. 1902.	1,000	7,000
July 1. 1886.	"	229 to 238	4	July 1. 1903.	1,000	10,000
July 1. 1886.	"	239 to 256	4	July 1. 1904.	1,000	18,000
July 1. 1876.	"	257 to 266	4	July 1. 1906.	1,000	10,000
July 1. 1886.	"	30 and 31	5 $\frac{1}{2}$	July 1. 1907.	5,000	10,000
July 1. 1888.	"	267 to 276	4	July 1. 1908.	1,000	10,000
July 1. 1888.	"	291	4	July 1. 1909.	1,000	1,000
July 1. 1888.	"	292	4	July 1. 1910.	1,000	1,000
July 1. 1888.	"	293	4	July 1. 1911.	1,000	1,000
July 1. 1888.	"	294	4	July 1. 1912.	1,000	1,000
July 1. 1888.	"	295	4	July 1. 1913.	1,000	1,000
July 1. 1888.	"	296	4	July 1. 1914.	1,000	1,000
July 1. 1888.	"	297	4	July 1. 1915.	1,000	1,000
July 1. 1888.	"	298	4	July 1. 1916.	1,000	1,000
July 1. 1888.	"	299	4	July 1. 1917.	1,000	1,000
July 1. 1888.	"	300	4	July 1. 1918.	1,000	1,000
July 1. 1888.	"	301	4	July 1. 1918.	1,000	1,000
July 1. 1888.	"	302	4	July 1. 1918.	1,000	1,000
	<i>Total</i>	<i>Funded Debt</i>	. . .	. . .	. . .	\$860,500

TABLE C.

STATEMENT OF ACCOUNTS, SHOWING APPROPRIATIONS, EXPENDITURES, ETC., TO DEC. 31, 1888.

APPROPRIATIONS.

CREDIT.

Taxes, amount assessed for current expenses	.	\$371,337 34
Property and debt balance	. . . . .	52,000 00
		<hr/>
		\$423,337 34

DEBIT.

City Hall Improvement	. . . . .	\$3,000 00
Fire Department	. . . . .	27,000 00
Health Department	. . . . .	4,500 00
Highways	. . . . .	44,000 00
Hose House in Ward Four	. . . . .	10,000 00
Indigent soldiers and sailors	. . . . .	500 00
Interest	. . . . .	30,000 00
Miscellaneous	. . . . .	4,000 00
Police	. . . . .	30,000 00
Police signal system	. . . . .	5,000 00
Police station incidentals	. . . . .	2,000 00
Public Library	. . . . .	3,000 00
Public grounds	. . . . .	6,000 00
Printing and stationery	. . . . .	3,000 00
Reduction of funded debt	. . . . .	35,187 34
Renewals of funded debt	. . . . .	27,000 00
Salaries	. . . . .	24,150 00
School contingent	. . . . .	17,000 00
School fuel	. . . . .	6,500 00
School-house incidentals	. . . . .	10,000 00
School teachers' salaries	. . . . .	40,000 00
Sewers	. . . . .	9,500 00
Sidewalks	. . . . .	4,500 00
		<hr/>
<i>Amount carried forward</i>	.	\$345,837 34

<i>Amount brought forward</i>	\$345,837 34	
Street lights	16,000 00	
Support of poor	14,000 00	
Watering streets	3,500 00	
Water maintenance	19,000 00	
Water-works extension . .	25,000 00	
	<hr/>	\$423,337 34

CASH.

CREDIT.

County of Middlesex	16,906 92	
City of Boston	6 50	
City hall improvements . .	2,953 95	
Funded debt	716,500 00	
Fire Department	26,743 88	
Highways	46,606 05	
Health Department	5,024 21	
Hose-house Ward Four . .	2,513 40	
Interest	48,242 50	
Indigent soldiers and sailors	1,015 00	
Miscellaneous	6,880 98	
Police	33,598 30	
Police signal system	4,174 06	
Police station incidentals . .	2,799 66	
Public Library	6,743 13	
Public grounds	6,146 66	
Printing and stationery . .	3,673 75	
Salaries	23,145 61	
School contingent	17,851 60	
School fuel	7,121 24	
School-house incidentals . .	13,993 75	
School teachers' salaries . .	85,700 66	
School-house in Ward Two . .	4,903 50	
School-house in Ward Three . .	46 04	
School-house in Ward Four . .	46 03	
Sewers	19,132 43	
Sidewalks	7,399 78	
	<hr/>	
<i>Amount carried forward</i>	\$1,109,869 59	

<i>Amount brought forward</i>	.	\$1,109,869	59	
Street lights	.	15,953	13	
Support of poor	.	13,373	98	
Sundry persons	.	195	00	
Watering streets	.	8,103	94	
State aid	.	3,985	00	
State of Massachusetts	.	30,127	50	
Temporary loans	.	370,000	00	
Water services	.	7,593	20	
Water maintenance	.	15,570	20	
Water-works extension	.	19,338	89	
				\$1,594,110 43
Balance to debit in account, 1889	.			20,101 85
				<hr/>
				\$1,614,212 28

DEBIT.

Balance	.	\$3,136	53
City of Boston water rates	.	50,419	07
Funded debt	.	52,000	00
Fire Department	.	100	33
Health Department	.	226	00
Highways	.	2,957	73
Highway betterment assessments	.	50	00
Interest	.	19,438	99
Indigent Soldiers and Sailors	.	2	00
Miscellaneous	.	4,594	26
Police	.	3,210	89
Police Station incidentals	.	568	00
Public Library	.	2,718	02
Printing and stationery	.	15	80
Real estate liens	.	39	89
State aid	.	42	00
Sidewalk assessments	.	4,164	91
Sewer assessments	.	6,261	37
Sewers	.	243	87
State of Massachusetts, State aid	.	3,611	00

Amounts carried forward . \$153,800 66 \$1,614,212 28

<i>Amounts brought forward</i>	\$153,800 66	\$1,614,212 28
State of Massachusetts, Indigent		
Soldiers and Sailors	426 00	
School-house incidentals	11 81	
School teachers' salaries	7 50	
Street lights	53 00	
Support of poor	2,293 07	
Temporary loans	370,000 00	
Taxes	419,661 59	
Reduction of funded debt	654,312 66	
School contingent	85 38	
Watering streets	5,710 46	
Water services	481 34	
Water maintenance.	291 15	
Water service assessments	7,077 66	
		<u>\$1,614,212 28</u>

COUNTY OF MIDDLESEX.

CREDIT.

Taxes, amount assessed	\$16,906 92
------------------------	-------------

DEBIT.

Cash, paid county tax	<u>\$16,906 92</u>
-----------------------	--------------------

CITY OF BOSTON WATER RATES.

CREDIT.

Cash, received of city of Boston		
return on water rates:—		
1887, 50 per cent. on \$6,376.59	\$3,188 30	
1888, 50 per cent. on \$94,461.55	47,230 77	
		<u>50,419 07</u>

DEBIT.

Cash, paid city of Boston, proportion of amount of water rates refunded	\$6 50	
School teachers' salaries, transferred	50,412 57	
		<u>\$50,419 07</u>

CITY HALL IMPROVEMENTS.

CREDIT.

Appropriations, amount assessed .	\$3,000 00
-----------------------------------	------------

DEBIT.

Cash, paid F. C. Fuller, carpentry	\$2,619 62
Walburg & Woehrn, fresco-	
ing	250 00
Miscellaneous account steam	
fitting	84 33

\$2,953 95

Excess and deficiency, balance to	
credit of account . . .	46 05

3,000* 00

EXCESS AND DEFICIENCY.

CREDIT.

City Hall improvement, credit bal-	
ance of account . . .	\$46 05
Fire Department, credit balance	
of account	356 45
Highways, credit balance of	
account	351 68
Interest, credit balance of account	913 87
Miscellaneous, credit balance of	
account	44 68
Police, credit balance of account .	438 53
Police Station incidentals, credit	
balance of account . . .	321 86
Salaries, credit balance of account	1,004 39
School teachers' salaries, credit	
balance of account . . .	4,719 41
Sidewalks,	791 96
Street lights	99 87
Support of poor	2,919 09

<i>Amount carried forward .</i>	\$12,007 84
---------------------------------	-------------

<i>Amount brought forward</i>	\$12,007 84	
Watering streets	106 52	
Water maintenance	4,071 04	
	<hr/>	\$16,185 40

DEBIT.

Health Department, debit balance of account	\$298 21	
Indigent soldiers and sailors, debit balance of account	6 50	
Overlay and Abatement debit balance of account	7,871 47	
Public Library, debit balance of account	12 94	
Public Grounds, debit balance of account	146 66	
Printing and Stationery, debit balance of account	657 95	
School Contingent, debit balance of account	766 22	
School Fuel, debit balance of account	621 24	
School-house incidentals, debit balance of account	1,281 94	
School-house in Ward Two, debit balance of account	725 95	
Sewers, debit balance of account	657 19	
	<hr/>	\$13,046 27
Balance to credit of account, 1889	3,139 13	
	<hr/>	<u>\$16,185 40</u>

FUNDED DEBT.

CREDIT.

Balance from 1887	\$1,525,000 00	
Cash, received for sale of City Loan Bonds, Nos. 887 to 909	\$23,000 00	
	<hr/>	
<i>Amounts carried forward</i>	\$23,000 00	\$1,525,000 00

<i>Amounts brought forward</i> .	\$23,000 00	\$1,525,000 00
City Loan Bonds, Nos. 910 to 913	4,000 00 •	
Water Loan Bonds, Nos. 278 to 302	25,000 000	52,000 00
	<hr/>	<hr/>
		\$1,577,000 00

DEBIT.

Cash, paid Commissioners of the Sinking Funds: —		
City Loan Bonds \$556,000		
Water Loan Bonds 96,500	\$652,500 00	
Sundry persons		
City Loan Bonds, Nos. 439 to 461	23,000 00	
City Loan Bonds, Nos. 467 to 507	41,000 00	
Balance to debit in account, 1889	860,500 00	
	<hr/>	<hr/>
		1,577,000 00

FIRE DEPARTMENT.

CREDIT.

Appropriations, amount assessed	\$27,000 00	
Cash, received of Lorenzo W. Dow, manure	\$56 00	
E. I. Braddock & Co., old copper, etc.,	44 33	100 33
	<hr/>	<hr/>
		\$27,100 33

DEBIT.

Cash, paid James R. Hopkins, chief engineer	\$1,200 00	
Nathaniel C. Barker, assistant engineer	300 00	
Steamer engineer	1,080 00	
Steamer firemen	900 00	
Seven drivers	6,300 00	
	<hr/>	<hr/>
<i>Amounts carried forward</i> .	\$9,780 00	\$27,100 33

<i>Amounts brought forward .</i>	\$9,780 00	\$27,100 33
Wm. A. Perry, substitute driver .	246 77	
E. T. Herron, substitute driver .	35 00	
Edwin F. Trefren, " " .	174 78	
Clarence F. Cook, special service	3 00	
Edward Backus, special service .	85 50	
William J. Blaisdell, special service	3 00	
George S. Harris, special service	3 00	
Frank E. Hersey, special service	36 87	
William C. Pierce, special service	15 50	
Henry J. Turner, special service	3 00	
Perlin K. Wood, special service	3 00	
Steamer Engine Company	786 00	
John E. Wool Hose "	691 00	
Winter Hill " "	691 00	
George H. Foster Hose Company	683 09	
George O. Brastow " "	691 00	
R. A. Vinal Hook & Ladder Company	1,356 00	
City of Boston, water for hydrants	1,848 00	
City of Boston, water for houses	105 00	
Seward Dodge, blacksmithing	84 22	
Everett E. Onley, blacksmithing	2 00	
Timothy O'Brien, horseshoeing	72 70	
Charles Maguire, horseshoeing	54 55	
Charles W. Ingalls, "	37 80	
Wm. H. Richardson, "	38 50	
E. Teel & Co., repairing apparatus	214 65	
E. Teel & Co., hose wagon	440 00	
Daniel H. Crocker, repairing apparatus	13 00	
Edward Kendall & Sons, repairing apparatus	6 20	
F. H. Flagg, repairing apparatus	3 50	
Union Square Carriage Co., repairing apparatus	13 50	
<i>Amounts carried forward</i>	<u>\$18,221 13</u>	<u>\$27,100 33</u>

<i>Amounts brought forward</i>	\$18,221 13	\$27,100 33
Wm. H. Bonner, repairs . . .	8 00	
Harry Hunt, repairs . . .	3 00	
J. E. Bond, repairing blinds . .	11 25	
E. Spalding, harness work . .	105 65	
D. J. Bennett, " " . .	46 60	
Joseph Cogan, " " . .	37 00	
Charles E. Berry, harness work .	32 00	
L. A. Hastings, " " . .	8 15	
C. A. Legallee, plumbing . .	21 70	
H. W. Covell & Co., plumbing .	54 10	
James F. Davlin, plumbing . .	27 12	
William B. Holmes, " . .	4 00	
Charles A. Holmes, " . .	8 95	
E. H. Buxton, repairing wagon .	22 00	
S. J. Wright, carpenter work .	1 83	
George K. Boyce, " " . .	37 37	
G. D. B. Robinson, carpenter work	194 68	
A. W. Berry, carpenter work .	33 23	
Elijah Walker, " " . .	243 50	
J. Q. Twombly, glazing . .	18 41	
J. C. Dyer, " . .	5 45	
J. F. Burton, " . .	2 50	
W. L. Snow, hardware, etc., .	68 50	
H. W. Raymond, " " . .	51 81	
Howe & Flint, " " . .	1 95	
Oscar F. Howe, brooms, etc. .	7 25	
Boston Woven Hose Co., hose and ladders	484 01	
Edwin Rogers, fire-alarm appa- ratus	744 95	
John L. Crafts, wire rope, etc. .	9 34	
Fuller, Dana & Fitz, wire . .	12 60	
Silsby Man'f'g Co., fittings . .	43	
Webster & Dustin, track . .	46 50	
S. D. Hicks & Son, copper . .	23 22	
A. A. Sanborn, steam fitting .	8 08	
<i>Amount carried forward</i> .	\$20,606 26	\$27,100 33

<i>Amounts brought forward</i>	\$20,606 26	\$27,100 33
Oliver Whyte, iron netting	3 15	
Crosby Steam Gage and Valve Co., repairing valve	1 50	
James H. Vinal & Co., screens	1 52	
A. S. Jackson, lanterns	31 10	
Dover Stamping Co., ash barrels	6 00	
Packard & Burrell, brushes	8 75	
Somerville Iron Foundry, castings	2 00	
George K. Paul & Co., cotton waste	15 55	
C. A. Holley, horse clothing	2 70	
Curtis & Haskell, dusters	9 63	
L. C. Field, sweepers	4 50	
Hall's English Food Co., food	5 00	
Broad Gauge Iron Works, manger	1 75	
C. Callahan, valve	35 00	
A. E. Hughes, show-case	18 00	
India Alkali Works, savogran	13 14	
J. Hinman, chemicals	59 86	
F. Ivers & Son, whip	2 25	
Weeks & Potter, vitriol	20 74	
Doolittle & Smith, vitriol	28 56	
Thomas Hollis, vitriol	107 27	
George H. Cowdin, drugs	1 35	
J. A. Durell, oil, etc.	2 84	
Charles Bartley, oil	8 63	
Knowles Bros., salt, etc.	2 00	
E. A. Bailey & Co., salt, etc.	50	
W. I. Heald, salt, etc.	91	
Martin L. Hall & Co., soap	3 75	
T. Spelman, soap	10 00	
Sturtevant Bros., horses	528 00	
John S. Nason, horses	675 00	
A. M. Prescott, hay, etc.	400 10	
J. A. McLane, use of team	20 00	
George McKenna, use of horse	80 00	
<i>Amounts carried forward.</i>	<hr/> \$22,717 31	<hr/> \$27,100 33

<i>Amounts brought forward</i> .	\$22,717 31	\$27,100 33
Nathan Tufts & Son, grain .	591 32	
Plummer & Co., hay and straw	619 62	
Walburg & Woehr, fresco- ing	11 00	
Thomas Dowd, plastering .	21 09	
B. M. Boyce, clock . .	42 00	
Mrs. Calvert, washing . .	34 22	
Thomas H. Daly, washing .	32 38	
Edw. W. Ring, washing .	21 21	
J. A. Buxton, washing . .	25 51	
Samuel H. Stevens, washing .	25 08	
J. O. Hayden & Co., printing	45 45	
Fred. H. Barry, printing .	12 00	
George G. Glines, expressing	25	
E. R. Perham, " .	21 95	
Dolhenty's Express, " .	1 30	
Thorpe's Express, " .	3 40	
Charles E. Farnham, " .	1 75	
William J. Loudon, " .	1 25	
George T. Day, " .	27 51	
Barker & Tibbetts, " .	50	
P. H. Wellcome, carriage hire	10 00	
H. Wellington & Co., fuel .	602 77	
B. F. Wild & Co., fuel .	463 02	
New England Telephone and Telegraph Company, rent- als and tolls	76 65	
Cambridge Gas Light Co., gas	247 88	
Charlestown Gas Co., gas .	130 92	
H. D. & W. S. Durgin, ice .	63 00	
Boston Ice Co., ice . .	14 00	
Winter Hill Ice Co., ice .	8 00	
H. C. Willis, veterinary ser- vices	28 00	
<i>Amounts carried forward</i> .	\$25,900 34	\$27,100 33

<i>Amounts brought forward</i> .	\$25,900 34	\$27,100 33
Charles R. Simpson, veterinary services	97 50	
Page & Littlefield, lumber .	23 63	
W. S. Walker, painting .	92 10	
Estate of John Leland, wheelwright work	2 00	
J. M. Burckes, mason work .	27 72	
M. D. Jones & Co., powder .	1 75	
Edward A. Rice & Co., soda	25 42	
C. H. Wheelock, gas stove .	11 60	
Cotter Bros., slating . . .	17 35	
Underhill Bros., grinding axe	60	
Paul Kelley, loam	4 80	
L. B. Angier, sawdust . . .	1 75	
S. J. Wood, repairing saw .	50	
Jackson Caldwell & Co., use of furniture	5 00	
C. A. Southwick, labor . . .	9 50	
Dennis Ryan, "	14 85	
Edwin H. Bright, "	10 00	
J. D. Perkins, Jr., "	7 50	
George L. Blackbird, labor .	12 50	
Albert L. Russell, telegraph work	23 52	
Warren H. Edmands, telegraph work	40 00	
William A. Perry, telegraph work	15 00	
H. P. Ewell, telegraph work	1 25	
Caleb A. Page, telegraph work	12 50	
Benjamin Pond, telegraph work	7 00	
John H. Cauley, meals . . .	9 30	
Daniel Webster Engine Co., refreshments	10 00	
<i>Amounts carried forward</i> .	<u>\$26,384 98</u>	<u>\$27,100 33</u>

<i>Amounts brought forward</i>	\$26,384 98	\$27,100 33
Cambridge Engine Co., refreshments	10 00	
Crane & Hanscom, premium of insurance	15 00	
Highways, account granite paving	333 90	
	<hr/>	
	\$26,743 88	
Excess and deficiency, balance to credit of account	356 45	
	<hr/>	
		<u>\$27,100 33</u>

HEALTH DEPARTMENT.

CREDIT.

Appropriations, amount	\$4,500 00
Cash, received of George I. Vincent, permits to keep swine and goats and collect grease	226 00
Excess and deficiency, balance to debit of account	298 21
	<hr/>
	\$5,024 21

DEBIT.

Cash, paid Wm. H. Brine, salary as inspector	\$370 37
Caleb A. Page, salary as inspector	629 62
Jeremiah McCarthy, collecting ashes, etc.,	834 43
John P. Downey, collecting ashes, etc.,	1,658 75
M. G. Staples, collecting ashes	1 25
Henry Gray, collecting offal	900 00
Sundry persons, burying dead animals	63 50
Burt & Henshaw, sulphur	6 35
West & Jenney, "	5 45
	<hr/>
<i>Amounts carried forward</i>	\$4,469 72
	<hr/>
	\$5,024 21

<i>Amounts brought forward,</i>	\$4,469 72	\$5,024 21
J. Hubbard & Co., disinfectant	9 25	
Heliotype Printing Co., maps	35 00	
Thomas Groom & Co., station- ery	92 00	
J. O. Hayden & Co., printing and advertising, . . .	55 95	
McDonnell Bros., advertising	8 00	
City of Cambridge, investigat- ing nuisances	10 14	
Thomas Waterman, vaccine virus	7 00	
Codman & Shurtleff, vaccine virus.	2 00	
Edward S. Wood, M. D., pro- fessional services . . .	10 00	
P. W. Skinner, fumigating .	6 00	
J. M. Corse, rent of post-office box	5 00	
C. O. Littlefield, officers' fees	2 00	
F. Finnegan, distributing post- ers	3 00	
B. F. Sheridan, distributing posters	12 00	
Thomas Miles, distributing posters	4 50	
Joshua Hiltz, care of pond .	7 50	
Robert Chew, labor . . .	124 26	
Charles Southwick, labor .	111 70	
H. W. Raymond, tools . .	45	
G. H. Hills & Co., jugs . .	44	
Howe & Flint, hardware .	80	
L. H. Brown, hack hire . .	18 00	
George C. Bonner, hack hire	4 00	
Charles E. Farnham, express- ing	50	
Mrs. P. J. Bench, compensa- tion for damages . . .	25 00	
	<hr/>	<u>\$5,024 21</u>

HIGHWAYS.

CREDIT.

Appropriations, amount assessed .		\$44,000 00
Cash, received of H. S. Atwood, side-		
walk	\$108 74	
David Cummings, sidewalk .	96 01	
Daniel L. McGregor, " .	54 40	
Bowman & Kendall, trustees,		
edgestones	13 04	
Charles Drouet, edgestones .	55 82	
First M. E. Church, " .	42 66	
J. F. Hathaway, " .	108 56	
T. C. Hollander, " .	134 83	
F. A. Titus, " .	111 25	
W. L. Snow, " .	28 27	
Harrison Aldrich, labor on drive-		
way	13 82	
L. B. Angier, labor on driveway	2 00	
E. A. Stone, " " .	6 25	
Chase & Dutch, driveway . .	57 21	
Horace D. Runey, driveway .	9 50	
Marvin O. Royce, driveway .	10 44	
Lewis Hollis, driveway . .	13 52	
S. T. Kirk, driveway . . .	10 48	
Ewen McLeod, driveway . .	1 69	
F. D. Woodbridge, driveway .	14 72	
Mary E. Vinal, driveway . .	3 32	
L. P. Hollander, bricks, etc., .	16 61	
Jere. McCarthy, " " .	37 80	
Edward Colleton, " " .	81 25	
Charles A. Morgan, stone .	4 50	
Wm. A. Muzzey, labor . . .	4 00	
H. G. Beane, pasturage . .	240 00	
R. M. Baldwin, rowen . .	30 00	
Daniel Hoar, " . .	5 00	
Charles Howard, horse . .	75 00	
Arthur Murley, rent . . .	64 00	
<i>Amounts carried forward .</i>	<u>\$1,454 69</u>	<u>\$44,000 00</u>

<i>Amounts brought forward</i>	\$1,454 69	\$44,000 00
Thomas Ormand, rent	72 00	
Public Grounds account, use of horse	39 20	
Fire Department account, paving blocks	333 90	
Miscellaneous account, crushed stone	6 00	
Sidewalk account, labor, etc.	658 00	
Boston & Lowell R. R. Co., labor, etc.	393 94	
	<hr/>	2,957 73
		<hr/>
		\$46,957 73

DEBIT.

Cash, paid laborers	\$23,880 23
Frank G. Williams, salary as superintendent	1,500 00
Board of horses	505 72
Welch & Hall, horses	350 00
Nathan Tufts & Son, grain	534 54
Fulton O'Brien, "	240 31
R. W. Willey & Co., "	165 27
A. M. Prescott, "	142 71
Powers & Co., "	216 63
C. H. Proctor, hay	220 07
Thomas R. Cook, hay	172 88
Chase & Dutch, grain	202 00
John F. Ayer, lumber	662 95
B. F. Clough & Co., lumber	27 00
Sanborn & Hatch, bricks	446 39
John Thresher, "	128 25
H. Mitchell, round stone	1,028 25
Albert A. Libby & Co., round stone	30 50
J. Turner & Co., stone	55 36
	<hr/>
<i>Amounts carried forward</i>	\$30,509 06

\$46,957 73

<i>Amounts brought forward</i>	. \$30,509 06	\$46,957 73
Jeremiah McCarthy, paving blocks, etc.	959 84	
J. J. Meaney, sand	15 00	
Cheatham Parks, filling . .	38 40	
George H. Sampson, powder, etc.	163 01	
Miller & Shaw, storage bins at crusher	615 08	
Oliver Whyte, screens . . .	15 00	
Osgood & Hart, castings . .	32 85	
Waldo Bros., tools	7 20	
Farrell Foundry & Machine Co. castings for crusher . . .	143 53	
Sylvester & Co., spikes . . .	2 70	
Jos. M. Cusker, tool handles .	19 90	
Parker & Wood, repairing hay cutter	11 75	
David M. Crocker, repairing buggy	103 25	
W. L. Snow, repairs	8 06	
J. Leland, wheelwright work .	43 40	
F. H. Flagg, " "	13 00	
George Tyler & Co., repairs .	9 20	
M. D. Jones & Co., stable work	7 50	
Whitney & Snow, hardware .	144 15	
H. W. Raymond, "	41 78	
Howe & Flint, "	4 50	
Wm. B. Berry & Co., sign . .	50	
Underhill Bros., tools . . .	2 20	
Samuel Walker & Co., oil . .	22 07	
J. F. Jones & Co., "	3 90	
H. T. Crocker, oil and waste .	35 51	
Snow Flake Oil Co., grease . .	12 00	
James H. Maguire, tallow . .	95	
W. Emery & Co., windows . .	5 75	
J. A. Durell, glass	1 66	
Page & Harris, use of sleigh .	2 00	
<i>Amounts carried forward.</i>	. \$32,994 70	\$46,957 73

<i>Amounts brought forward</i>	.\$32,994 70	\$46,957 73
Timothy O'Brien, horseshoeing .	462 02	
C. W. Ingalls, horseshoeing .	15 72	
M. Lynch, horseshoeing .	5 00	
John Kellogg, " .	75	
A. Clement " .	3 50	
Chas. T. Southwick .	3 45	
P. O'Neil, horseshoeing .	7 58	
F. Dooris, blacksmithing .	159 08	
Seward Dodge, blacksmithing .	277 02	
Jas. Forgie & Son, harnesses .	188 08	
E. Spalding, harness work .	119 48	
J. Q. Twombly, painting .	3 00	
James F. Davlin, plumbing .	52 16	
Richardson & Brown, stencil .	2 50	
S. J. Wood, filing saws .	4 75	
Geo. S. Cheney & Co., drugs, .	25 63	
A. S. Symmes, " .	7 50	
Chas. R. Simpson, veterinary services	57 75	
Rufus G. Brown & Co., rust preventative	26 60	
N. E. Fitz & Co., wharfage .	68 55	
New-England Telephone and Telegraph Co., rentals and tolls	75 80	
J. A. Litchfield, meal .	4 17	
Thos. Groom & Co., stationery .	54 50	
J.O. Hayden & Co. advertising .	40 50	
City of Boston, water-rates .	48 00	
George C. Bonner, hack-hire .	7 00	
Western Union Telegraph Co., telegrams	52	
Boston and Providence R. R. Co., freight	3 71	
Fitchburg Railroad Co., trans- porting gravel	5,208 00	
<i>Amounts carried forward.</i>	.\$39,927 02	\$46,957 73

<i>Amounts brought forward</i>	. \$39,927 02	\$46,957 73
E. R. Perham, expressing . . .	1 50	
Geo. G. Glines, " . . .	1 03	
Blackall's Express, " . . .	2 00	
H. Wellington & Co., fuel . . .	311 71	
S. A. Stewart & Co., buggy . . .	200 00	
F. O. Reed, and others, loam . . .	27 20	
John R. Thompson, labor . . .	4 32	
F. A. Rolfe, flannel . . .	1 40	
Wm. Canavan, damage to post . . .	6 00	
American Enamel Co., signs, . . .	48 72	
Town of Winchester, taxes, . . .	10 69	
Town of Wakefield, " . . .	26 94	
City of Waltham, " . . .	117 30	
Town of Medford, half cost of maintaining Middlesex Avenue bridge	5,690 14	
Fairbairn & McKenna, officers' fees	10 00	
American Steam Boiler Ins. Co., premium of insurance . . .	75 00	
Middlesex Registry of Deeds, recording	1 65	
William Hamilton, mowing . . .	37 00	
Water-maintenance account, re- pairing fountain	37 28	
Sidewalk-Assessments' acct., side- walk on Elm street,	41 81	
Town of Arlington, half cost of water-gates	27 34	
	<hr/>	
	\$46,606 05	
Excess and deficiency, balance to credit of account	351 68	
	<hr/>	
		<u>\$46,957 73</u>

HIGHWAY BETTERMENT ASSESSMENTS.

CREDIT.

Cash received from sundry persons, assessments,	\$50 00
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DEBIT.

Balance from 1887	\$50 00
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HOSE HOUSE IN WARD FOUR.

CREDIT.

Appropriations, amount assessed	\$10,000 00
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DEBIT.

Cash, paid B. W. Lawrence, travelling expenses	\$13 40
Coon & Hall, on account of contract	2,500 00
	<hr/>
	\$2,513 40
Balance to credit in acct., 1889	7,486 60
	<hr/>
	\$10,000 00

INDIGENT SOLDIERS AND SAILORS.

CREDIT.

Appropriations, amount assessed	\$500 00
State of Massachusetts, indigent soldiers and sailors, one-half of amount paid in 1888	506 50
Excess and deficiency, balance to debit of account	6 50
	<hr/>
	\$1,013 00

DEBIT.

Cash, paid sundry persons	\$1,013 00
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INTEREST.

CREDIT.

Appropriations, amount assessed		\$30,000 00
Real estate liens, interest on titles to the city on property deeded for non-payment of taxes	\$2 38	
Cash, received on deposits in banks	715 00	
On taxes and assessments	6,441 88	
Of State treasurer, national bank tax	4,243 79	
Corporation tax	6,935 67	
Foreign ships tax	638 59	
On tax titles released	7 04	
Brewster, Cobb & Estabrook, premium on bonds	457 02	
	<hr/>	19,441 37
		<hr/>
		\$49,441 37

DEBIT.

Cash, paid on funded debt,	
\$485,000, one year at 4 per cent.	\$19,400 00
\$52,000, six months at 4 per cent.	1,040 00
\$354,500, one year at 5 per cent.	17,725 00
\$23,000, six months at 5 per cent.	575 00
\$10,000, one year at $5\frac{1}{2}$ per cent.	550 00
	<hr/>
	\$39,290 00
Less coupons unpaid	285 00
	<hr/>
	\$30,005 00
Sundry persons, coupons unpaid	285 00
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	<u>\$39,290 00</u>

Cash, paid on temporary loans:—

Commonwealth of Massachusetts, on note of \$50,000, three months at 5 per cent.	625 00
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<i>Amounts carried forward</i>	\$625 00	<hr/>	\$49,441 37
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<i>Amounts brought forward</i>	\$625 00	\$49,441 37
F. S. Moseley & Co., on note of \$25,000 six months at 6 per cent.	750 00	
F. S. Mosley & Co., on note of \$25,000, six months at 6 per cent.	750 00	
F. S. Moseley & Co., on note of \$20,000, six months at 6 per cent.	600 00	
Blake Brothers & Co., on note of \$25,000, four months at $5\frac{1}{4}$ per cent.	437 50	
Commonwealth of Massachusetts on note of \$200,000, eight months at $4\frac{1}{2}$ per cent.	6,075 00	
	<u>\$9,237 50</u>	
On funded debt	39,290 00	
On temporary loans	9,237 50	
	<u>\$48,527 50</u>	
Excess and deficiency balance to to credit of account	913 87	
		<u><u>\$49,441 37</u></u>

MISCELLANEOUS.

CREDIT.

Appropriations, amount assessed	.	.	\$4,000 00
Real estate liens, costs on titles to the city on property deeded for non-payment of taxes	.	.	31 40
Cash, received of sundry persons, costs on property sold and prepared for sale for non-payment of taxes and assessment	.	.	607 70
On real estate liens released	.	.	3 00
		<u></u>	
<i>Amounts carried forward</i>	.	.	<u><u>\$642 10</u></u>
			\$4,000 00

<i>Amounts brought forward</i>	\$642 10	\$4,000 00
Sundry persons liquor licenses	21 00	
Thomas Cunningham, milk inspectors fees	140 00	
Mark F. Burns, county fees . .	2 00	
Eugene Gormley, horse	65 00	
Frank X. Williams, old iron . .	9 03	
Salvatore B. Deblaise, license . .	25 00	
Edward Foote, land on Bond Street	2,774 45	
City Hall improvement, steam fitting	84 33	
Charles E. Gilman, city clerk:—		
Marriage certificates . \$15 00		
Recording mortgages . 17 75		
Junk licenses . . . 2 00		
	<hr/>	34 75
George I. Vincent, city clerk:—		
Marriage certificates . \$168 50		
Recording mortgages . 290 75		
Licensing dogs . . . 239 00		
Junk licenses . . . 70 00		
Liquor “ . . . 21 00		
Auctioneer licenses . 16 00		
Billiard tables licensed 10 00		
Miscellaneous . . . 12 75		
	<hr/>	828 00
	<hr/>	\$4,625 66
		<hr/>
		\$8,625 66

DEBIT.

Cash, paid A. S. Arnold, carpentry, .	\$1 50	
L. Arnold, “ .	7 00	
F. A. Chandler, “ .	60 67	
F. C. Fuller, “ .	106 78	
S. T. Kirk, “ .	53 76	
R. A. Stevens, “ .	6 21	
E. Spalding, harness work, .	10 60	
Charles Maguire, horseshoeing .	8 75	
	<hr/>	
<i>Amounts carried forward</i> . .	\$255 27	\$8,625 66

<i>Amounts brought forward</i>	\$255 27	\$8,625 66
Seward Dodge, horseshoeing	11 77	
Timothy O'Brien, "	2 25	
C. A. Legallee, plumbing	8 60	
Pierce & Jackson, "	6 50	
F. A. Norris, painting,	25 50	
Haley & Perkins, "	13 84	
J. Q. Twombly, "	17 02	
A. A. Sanborn, steam-fitting,	48 65	
Wm. H. Poole, gas-fitting	15 13	
Ingalls & Richardson, steam-fitting	10 95	
Whitney & Dunmore, repairing bell	1 00	
G. M. D. Fernald, gong	6 30	
Frederick P. Wallgren, bronzing	43 50	
Bigelow & Dowse, tape, etc.	24 51	
John P. Lovell Arms Co., line,	1 40	
Frost & Adams, engineer's supplies	34 04	
Buff & Berger, transit	242 25	
A. W. Mitchell, silver badges,	12 25	
Shreve, Crump & Low Co., gas fixtures	110 00	
E. Van Noorden & Co., ventilators	111 00	
Boston Nickel-plate Co., plating	2 25	
Educational Supply Co., lacto-scope	4 00	
F. P. Williams, engineer's supplies	7 95	
Derby & Kilmer Desk Co., desks	88 00	
P. Derby & Co., office chairs,	20 00	
Smith & Co., altering book-case	40 00	
William H. Brine, repairing furniture	639 77	
Page & Littlefield, carpentering	7 50	
C. S. Decker, awnings	13 70	
<i>Amounts carried forward.</i>	\$1,824 90	\$8,625 66

<i>Amounts brought forward</i>	. \$1,824 90	\$8,625 66
Bishop Brothers, ladder	. . 5 05	
I. H. Brown & Co., lumber	. 12 84	
C. A. Slager, voting-list boards	. 11 10	
Daniel Crocker, repairing clock	. 3 00	
George D. Goodrich, drainpipe	. 2 70	
J. A. Chabot, repairing lock	. 3 00	
Union Square Carriage Co., re- pairing buggy	. . . 26 25	
Walworth Manufacturing Co., pipe	. . . . . 25	
Howe & Flint, hardware	. . 16 83	
H. W. Raymond, hardware	. 30 62	
Whitney & Snow, “	. . 26 27	
Jacob Woodbury, “	. . 40	
James F. Davlin, chimneys	. 1 00	
Murphy, Leavens & Co., brushes	. 67	
Hopkins & Fullerton, furniture	. 16 00	
Tobias & Wall, leather bag	. 6 50	
E. B. Sears, robe	. . . 12 00	
Hill & Langtry, robe, etc.	. . 10 90	
Jackson Caldwell & Co., furniture	. 35 85	
F. G. Ray & Co., dry goods	. 4 40	
Pulsifer, Jordan & Pfaff, sta- tionery	. . . . . 4 55	
C. M. Blake, newspapers	. . 6 00	
Thomas Groom & Co., stationery	. 3 85	
A. C. Winning, mason work	. 13 26	
E. H. Marsh, return of deaths	. 25 75	
W. A. Flaherty, “ “	. 36 25	
P. H. Rafferty, “ “	. 21 25	
C. H. Lockhart, “ “	. 16 25	
H. D. Runey, “ “	. 25 00	
Jos. J. Kelley, “ “	. 3 50	
H. P. Mackechnie, return of births	. 4 25	
H. B. McIntire, “ “	. 1 25	
John F. Couch, “ “	. 54 25	
<i>Amounts carried forward</i>	. \$2,265 94	\$8,625 66

<i>Amounts brought forward</i>	\$2,265 94	\$8,625 66
E. A. Sanborn, return of births	4 00	
F. W. Taylor, " "	75	
R. L. Lane, " "	5 00	
J. A. Gregg, " "	4 25	
J. A. Coburn, " "	1 50	
Geo. Cullis, " "	190 50	
Geo. Cullis, affidavit of posting	45 50	
J. A. McLane, posting	52 10	
New England Telephone and Telegraph Co., rentals and tolls	258 30	
A. L. Russell, repairing igniter	1 00	
Engineers' assistants, car fares, etc.	17 45	
J. H. Brooks, engineers' supplies	46	
John Canavan, washing powder	50	
L. D. Miller, polish	1 00	
India Alkali Works, savogran	3 12	
B. F. Wild & Co., fuel	199 65	
H. Wellington & Co., fuel	47 25	
Cambridge Gas Light Co., gas	318 62	
City of Boston, water-rates	26 67	
R. T. Blackwell, horse-keeping	309 23	
Jairus Mann, watching, etc.	89 23	
M. A. Mann, laundrying	18 00	
S. J. Wood, keys	8 60	
M. G. Staples, teaming	1 00	
A. M. Prescott, " "	31 50	
Stilphen & Co., expressing	2 90	
Chas. E. Farnham, " "	6 75	
William J. London, " "	16 90	
Thorpe's Express, " "	65	
E. R. Perham, " "	55	
George T. Day, " "	25	
Alfred E. Mann, carriage-hire	12 00	
H. M. Weld, " "	10 00	
P. H. Wellcome, " "	5 00	
<i>Amounts carried forward</i>	\$3,956 12	\$8,625 66

<i>Amounts brought forward</i>	. \$3,956 12	\$8,625 66
Ward Officers	288 00	
Philip Eberle, use of hall	25 00	
L. B. Pillsbury, "	12 00	
F. A. White, "	15 00	
N. L. Pennock, labor	9 00	
William H. Kelley, "	4 00	
W. H. Laskey, "	4 00	
George H. Maynard, "	2 25	
L. M. Maynard, "	15 00	
C. M. Whitcomb, "	1 25	
William H. Denton, "	4 00	
James Deacon, "	4 10	
P. O'Connell, "	1 75	
E. H. Bright, "	19 13	
Phebe Arnold, "	9 15	
George W. Prichard, teaming	13 13	
Geo. F. Ricker, cleaning carpets	14 01	
J. H. Colbath, ringing bell,	8 00	
A. M. Sibley, "	8 00	
Fred Young, "	8 00	
T. G. Poland, "	2 00	
Lemuel G. Trott, "	6 00	
G. W. Littlefield, "	3 00	
C. W. Sawyer, services as auc- tioneer	52 08	
S. H. Libby, services as auc- tioneer	7 20	
Livermore & Fish, legal fees,	60 24	
Chas. B. Stevens, recording deeds, etc.	8 05	
George T. Unwin, drugs	2 10	
James Benson, oiling flag-staff	19 30	
F. O. Reed, rent of rifle range	150 00	
H. D. & W. S. Durgin, ice	35 00	
F. D. Lapham, premium of insur- ance	6 00	
<i>Amounts carried forward.</i>	. \$4,771 86	\$8,625 66

<i>Amounts brought forward</i>	\$4,771 86	\$8,625 66
F. E. Whitcomb, horse	250 00	
Crane & Hanscom, premium of insurance	11 00	
W. H. Way, veterinary services	8 00	
A. Colman, sealer of weights and measures	75 00	
James Carney, floral design	25 00	
W. R. Cann, services at church	5 84	
J. Tyler Hicks & Co., refreshments	73 39	
Sturtevant Bros., turkeys	2 00	
A. H. Atwood, "	90 00	
Wm. S. Ward, "	112 47	
Willard C. Kinsley Post 139, G. A. R., contribution for observance of Memorial Day	300 00	
Commonwealth of Massachusetts, one-fourth of amount received for liquor licenses	5 25	
Susan McCauley, compensation for damages	150 00	
John M. Corse, rent of Post-Office box	4 00	
A. B. Fales, clerical services	549 00	
William F. Priest, "	40 00	
Chas. S. Robertson, "	69 00	
Beulah M. Pierce, "	137 44	
Clara M. Smith, "	30 00	
Amy L. Manning, "	4 00	
Chas. E. Gilman, stamps	6 10	
A. W. Mitchell, rubber stamp	2 25	
Water maintenance, thawing water pipe	56 05	
Highway acct., crushed stone	6 00	
Sewer Assessments' account, sewer in Highland Avenue	97 33	
<i>Amounts carried forward</i>	\$6,880 98	\$8,625 66

<i>Amounts brought forward</i>	. \$6,880 98	\$8,625 66
School-House Incidentals account, transferred	. . . 1,700 00	
		8,580 98
Excess and deficiency, balance to credit of account	. . . . .	44 68
		<u>\$8,625 66</u>

OVERLAY AND ABATEMENT.

CREDIT.

Taxes, amount added to the amount of taxes assessed as fractional divisions for convenience in apportionment, to be applied to abatement on taxes	. . . . .	\$3,086 84
Excess and deficiency, balance to debit of account		7,871 47
		<u>\$10,958 31</u>

DEBIT.

Taxes, for amount of abatements on taxes	<u>\$10,958 31</u>
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OVERPLUS ON TAX SALES.

CREDIT.

Balance from 1887	\$102 13
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DEBIT.

Balance to 1889	<u>\$102 13</u>
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PROPERTY AND DEBT BALANCE.

CREDIT.

Renewals of funded debt	. . . \$27,000 00	
Public property acquired during the year 1888	. . . 24,242 39	
Reduction of funded debt	. . . 689,500 00	
		<u>\$740,742 39</u>
<i>Amount carried forward</i>	. . . . .	<u>\$740,742 39</u>

Amount brought forward \$740,742 39

DEBIT.

Balance from 1887	\$259,718 95	
Appropriations	52,000 00	
Public property sold during the year 1888	2,500 00	
Balance to credit in account 1888,	426,523 44	
		<u>\$740,742 39</u>

PUBLIC PROPERTY.

CREDIT.

Property and debt balance, property sold during the year 1888	\$2,500 00
Balance to debit in account 1889,	1,287,023 44
	<u>\$1,289,523 44</u>

DEBIT.

Balance from 1887	\$1,265,281 05
Property and debt balance, prop- erty acquired during the year 1888	24,242 39
	<u>\$1,289,523 44</u>

PUBLIC LIBRARY.

CREDIT.

Balance from 1887	\$1,012 17
Appropriations, amount assessed	3,000 00
Cash, received on county treas- urer, return of dog licenses for 1887	\$2,388 30
H. A. Adams, librarian, fines	283 57
Catalogues	46 15
	<u>2,718 02</u>
Excess and deficiency, balance to debit of ac- count	12 94
	<u>\$6,743 13</u>

Amount carried forward \$6,743 13

Amount brought forward \$6,743 13

DEBIT.

Cash, paid Little, Brown & Co., books	\$2,116 81
Estes & Lauriat, books . . .	313 53
Laughton, Macdonald & Co., books	317 27
Henry C. Nash, books . . .	22 20
W. B. Clarke & Co., books . .	176 00
William H. Thompson, books, .	33 00
Balch Brothers & Graham, books	14 00
Houghton, Mifflin & Co., books .	7 50
B. B. Russell, books	29 50
Martin, Garrison & Co., books .	7 00
D. Appleton & Co., books . . .	6 00
C. A. Robinson, books	2 75
J. Buchanan Henry, books . . .	1 50
J. G. Roberts & Co., binding books	96 53
Ira Bradley & Co., binding books	12 00
George B. Jones, atlas	8 00
Clark & Carruth, stationery . .	3 75
Thomas Groom & Co., "	60
N. L. Chamberlain, stamp ribbon	1 50
Babb & Stephens, printing . . .	230 25
Rockwell & Churchill, printing .	847 50
C. M. Blake, newspapers	12 00
B. F. Wild & Co., fuel	198 45
H. Wellington & Co.	5 00
Cambridge Gas Light Co., gas . .	173 29
D. P. Bucknam, mason work . . .	29 68
A. C. Winning, mason work . . .	7 25
F. A. Norris, painting	19 33
F. A. Chandler, carpenter work .	4 20
John K. Ricker, carpenter work	75 00
Walker & Pratt, Man'f'g Co., steam fitting	90 46
William H. Poole, gas fitting . .	2 60
Fox, McDormand & Co., ladder	19 50

Amounts carried forward . \$4,883 95 \$6,743 13

<i>Amounts brought forward</i>	\$4,883 95	\$6,743 13
H. W. Raymond, hardware	4 36	
Howe & Flint, "	5 25	
Whitney & Snow, "	3 95	
S. J. Wood, fitting keys, etc.	2 75	
City of Boston, water	29 00	
B. F. Smith, pumping	3 00	
Charles A. Mongan, drain	45 80	
Wm. J. Loudon, expressing	27 45	
C. E. Farnham, "	19 50	
C. A. Southwick, labor	2 00	
E. H. Bright, labor	6 75	
Chas. S. Robertson, prem. of ins.	67 50	
Crane & Hanscom, premium of insurance	33 75	
H. A. Adams, librarian	700 00	
Charlotte I. Hopkins, assistant	400 00	
Anna L. Stone, assistant	300 00	
Mary Warren, "	112 60	
Harry J. Pillsbury, assistant	80 30	
Amy L. Manning, "	10 92	
A. B. Souther, "	4 30	
		<u>\$6,743 13</u>

PUBLIC GROUNDS.

CREDIT.

Appropriations, amount assessed	\$6,000 00
Excess and deficiency, balance to debit of account	146 66
	<u>\$6,146 66</u>

DEBIT.

Cash, paid laborers	\$2,247 94	
G. W. Manning, labor on flag staff	16 68	
Walter Bates, concreting	1,872 95	
<i>Amounts carried forward</i>	<u>\$4,137 57</u>	<u>\$6,146 66</u>

<i>Amounts brought forward</i>	. \$4,137 57	\$6,146 66
John Turner & Co., paving	. 184 86	
Christopher Burke, loam	. 365 39	
Paul Kelley, loam	. 18 69	
T. F. Crimmings, manure	. 650 64	
John Maloy, "	. 166 72	
Fred. Burrows, "	. 54 40	
L. M. Maynard, "	. 18 00	
John Regan, "	. 9 60	
Joseph Breck & Son, grass seed	. 78 22	
John F. Ayer, lumber	. 28 21	
I. H. Brown & Co., lumber	. 6 91	
T. F. Farrington, carpenter work	149 70	
F. A. Chandler, " "	3 90	
C. A. Legallee, plumbing	. 1 90	
H. W. Raymond, hardware	. 2 44	
Whitney & Snow, "	. 53 35	
Howe & Flint, "	. 1 15	
J. A. Durell, line, etc.,	. 3 18	
Dennis C. Collins, teaming	. 28 50	
Leavitt & Woodworth, plants	. 10 00	
Thomas Young, "	. 68 40	
C. T. Southwick, repairing mower	14 94	
F. Dooris, repairing mower	. 1 50	
Joseph Young, care of lawn, etc.	21 00	
L. A. Wright, repairing mower	. 3 35	
E. H. Bright, labor	. 4 81	
Daniel Murphy, labor	. 7 44	
Dennis O'Rouke, " .	. 7 44	
E. R. Perham, expressing	. 4 75	
Seward Dodge, blacksmithing	. 50	
Highways account, use of horse	39 20	

\$6,146 66

PRINTING AND STATIONERY.

CREDIT.

Appropriations, amount assessed		\$3,000 00
Cash, received of Fox, Marnier & Co., advertising . . .	\$1 50	
Eastern Freight Car Heater Co., advertising . . .	3 90	
Ferris & Snow, advertising . . .	3 80	
Mystic Hat Co., " . . .	6 60	
		<hr/> 15 80
Excess and deficiency, balance to debit of account		657 95
		<hr/> \$3,673 75

DEBIT.

Cash, paid J. O. Hayden & Co., printing and advertising . . .	\$1,344 47	
McDonnell Bros., advertising . . .	57 25	
Rand, Avery & Co., printing annual reports	715 46	
Goodwin & Drisko, printing . . .	5 00	
Babb & Stephens, " . . .	109 50	
Bufford's Sons, " . . .	90 00	
Heliotype Printing Co., maps, . . .	5 00	
Thomas Groom & Co., stationery, . . .	1,311 03	
Charles E. Pierce, stationery . . .	80	
Derby & Kilmer Desk Co., ink stand . . .	3 00	
Sampson, Murdock & Co., books, . . .	10 00	
Geo. I. Vincent, postage stamps . . .	3 74	
Somerville Citizen, advertising . . .	18 50	
		<hr/> \$3,673 75

POLICE.

CREDIT.

Appropriations, amount assessed	\$30,000 00
Police Signal System, transferred	825 94
Cash received of H. A. Chapin, clerk of court, for officers' fees, fines, etc.	3,210 89
	<hr/>
<i>Amount carried forward</i>	\$34,036 83

Amount brought forward \$34,036 83

DEBIT.

Cash, paid M. C. Parkhurst, chief	. \$1,700 00
R. R. Perry, captain	. . 1,400 00
Samuel R. Dow, sergeant	. . 1,100 00
Edward McGarr, "	. . 1,100 00
C. C. Cavanagh, "	. . 1,100 00
George W. Bean, patrolman	. . 1,006 50
Samuel A. Brown, "	. . 1,006 50
George A. Bodge, "	. . 1,006 50
Patrick J. Bench, "	. . 880 00
Edward M. Carter, "	. . 1,006 50
Eugene A. Carter, "	. . 1,006 50
George H. Carlton, "	. . 1,006 50
Charles L. Ellis, "	. . 985 00
John E. Fuller, "	. . 1,006 50
James F. Foley, "	. . 993 25
John Hafford, "	. . 1,006 50
Edward E. Hamblin, "	. . 1,006 50
John F. Johnson, "	. . 1,006 50
William H. Johnston, "	. . 993 25
Myron H. Kingsley, "	. . 1,006 50
Dennis Kelley, "	. . 998 25
Ivan Laighton, "	. . 1,006 50
Herbert H. Miller, "	. . 1,006 50
Judson W. Oliver, "	. . 1,006 50
F. A. Perkins, "	. . 1,004 75
P. W. Skinner, "	. . 1,006 50
Albion L. Staples, "	. . 1,006 50
George L. Smith, "	. . 1,003 75
Charles S. Thrasher, "	. . 993 25
Charles E. Woodman, "	. . 797 50
E. F. Backus, patrolman (special),	16 50
T. E. Herron, " "	56 00
M. C. Parkhurst, lock-up keeper.	100 00
" " disbursements	1 00
Samuel R. Dow, car fares, etc.	34 67

Amounts carried forward . . \$31,361 17 \$34,036 83

APPENDIX TO TREASURER AND COLLECTOR'S REPORT.

<i>Amounts brought forward</i>	. \$31,361 17	\$34,036 83
Dennis Kelley, car fares, etc.	. 34 10	
P. W. Skinner, " "	. 2 20	
Edward E. Hamblin, " "	. 1 85	
George H. Carlton, " "	. 1 30	
New England Telephone and Telegraph Company, rentals and tolls	. 465 27	
R. T. Blackwell, horse-keeping	. 368 75	
Timothy O'Brien, horse-shoeing	. 20 75	
Geo. L. Brownell, patrol wagon	. 450 00	
Sturtevant & Bros., horse	. 250 00	
Union Square Carriage Co., repairs	. 98 52	
Charles E. Berry, harnesses	. 60 00	
E. Spalding, repairing harnesses, etc.	. 68 15	
D. J. Bennett, repairing harnesses, etc.	. 5 00	
W. H. Way, veterinary services	. 4 00	
H. W. Raymond, hardware	. 24 13	
F. D. Snow, " "	. 1 00	
S. B. Locke & Co. " "	. 2 01	
T. F. Small, painting wagon	. 20 00	
Seward Dodge, blacksmithing	. 6 40	
Howe & Flint, supplies	. 13 30	
Jackson Caldwell & Co., furniture, etc.	. 48 98	
H. D. & W. S. Durgin, ice	. 30 00	
J. O. Hayden & Co., printing	. 38 92	
Thomas Groom & Co., stationery	. 30 30	
M. R. Warren, stationery	. 3 00	
J. Hubbard & Co., disinfectant	. 4 00	
George W. Simmons & Co., wreaths	. 2 50	
Simon Connor, wreaths	. 3 00	
A. W. Mitchell, badges	. 12 00	
<i>Amounts carried forward</i>	. \$33,430 60	\$34,036 83

<i>Amounts brought forward,</i>	\$33,430 60	\$34,036 83
Samuel O. Aborn, hat trimmings	17 50	
Scovell Manufacturing Co., buttons	31 50	
Boston Nickel Plating Co., plating	75	
D. Cutter, repairing badges .	1 00	
W. K. Young, meals	9 00	
Lizzie Avery, washing . . .	20 40	
T. Cronin, teaming	9 05	
Somerville Electric Light Co., poles, etc.	46 00	
F. E. Pettingill & Co., tree trimmer	2 50	
W. J. London, expressing . .	1 25	
P. O'Connell, conveying prisoners	2 00	
Patrick Kelley, conveying prisoners	2 00	
Thomas P. Frost, conveying prisoners	7 90	
S. J. Wood, keys	25	
C. M. Blake, newspapers . .	14 60	
Eben Jackson, professional services	2 00	
	<hr/>	
	\$33,598 30	
Excess and deficiency balance to credit of account	438 53	
	<hr/>	
		<u>\$34,036 83</u>

POLICE STATION INCIDENTALS.

CREDIT.

Appropriations, amount assessed .		\$2,000 00
School-house in Ward Three transferred	\$349 07	
	<hr/>	
<i>Amounts carried forward.</i> .	\$349 07	\$2,000 00

<i>Amounts brought forward</i>	\$349 07	\$2,000 00
School-house in Ward Four transferred	204 45	
		553 52
Cash, received of Commonwealth of Massachusetts, rent of armory	\$400 00	
Somerville Co-operative Bank, use of court room	52 00	
Willard C. Kinsley Post 139, G. A. R., use of hall	50 00	
Post Relief Association, use of hall	25 00	
Robert Luce, use of hall	15 00	
N. K. Bishop, " " "	12 00	
Washington Canton I. O. of O. F., use of hall	6 00	
C. C. Cavanagh, old lumber	8 00	
		568 00
		<u>\$3,121 52</u>

DEBIT.

Cash, paid Wm. D. Hayden, janitor	\$764 00	
Cambridge Gas Light Co., gas	503 59	
City of Boston, water	63 00	
H. Wellington & Co., fuel	440 45	
B. F. Wild & Co., fuel	48 00	
George W. Young, closets for armory	472 75	
Leonard Arnold, carpenter work	22 27	
S. & C. H. Williams, " "	103 51	
F. A. Chandler, " "	4 50	
A. A. Sanborn, steam-fitting	36 16	
W. H. Poole, gas piping	14 22	
C. A. Legallee, plumbing	45 82	
James F. Davlin, " "	41 63	
D. P. Bucknam, mason work	18 25	
Fred. Davis, whitewashing	7 50	
D. W. McDermott, painting, etc.	9 83	
<i>Amounts carried forward</i>	\$2,595 48	\$3,121 52

<i>Amounts brought forward</i>	\$2,595 48	\$3,121 52
H. W. Raymond, hardware	13 90	
Howe & Flint, “	8 00	
C. A. Holmes, “	9 40	
Boston Chair Manufacturing Co.		
chairs	51 25	
A. G. Whitcomb, chairs . .	2 33	
Hopkins & Fullerton, repairing chair	1 50	
H. A. Hartley & Co., rugs .	22 00	
Wm. L. Fox & Co., star compound	5 00	
American Steam Boiler Insurance Co., premium of insurance .	75 00	
S. J. Wood, fitting keys . .	25	
Thorpe's Express, expressing .	30	
E. H. Bright, labor	2 25	
A. M. Prescott, labor . . .	1 00	
Willard C. Kingsley Post, 139 G. A. R., rent refunded . .	12 00	
	<hr/>	
	\$2,799 66	
Excess and deficiency, balance to credit of account	321 86	
	<hr/>	
		\$3,121 52

POLICE SIGNAL SYSTEM.

CREDIT.

Appropriations, amount assessed	\$5,000 00
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DEBIT.

Cash, paid Municipal Signal Co.:—

25 alarm boxes and apparatus .	\$3,488 88
F. E. Pettingill & Co., supplies .	454 37
H. W. Raymond, supplies . .	13 12
Howe & Flint, supplies . . .	1 15
S. J. Wood, supplies	25
Laborers	165 25
C. W. Moulton & Co., ladder .	10 00

<i>Amounts carried forward</i> .	\$4,133 02	\$5,000 00
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<i>Amounts brought forward</i> . . .	\$4,133 02	\$5,000 00
Bishop & Brother, hook-pole . . .	7 00	
M. C. Parkhurst, car fares, etc. . .	34 04	
	<hr/>	
	\$4,174 06	
Police, transferred	825 94	
	<hr/>	
		<u>\$5,000 00</u>

REAL ESTATE LIENS.

CREDIT.

Cash, received of sundry persons for tax titles released	\$39 89
Balance to debit in account, 1889	335 58
	<hr/>
	\$375 47

DEBIT.

Balance from 1887	\$321 67
Taxes, titles deeded to the city for non-payment of taxes	20 02
Interest, for non-payment of interest	2 38
Miscellaneous, for non-payment of costs	31 40
	<hr/>
	<u>\$375 47</u>

REDUCTION OF FUNDED DEBT.

CREDIT.

Appropriations, amount appropriated	\$35,187 34
Cash received of Commissioners of the sinking funds	654,312 66
	<hr/>
	\$689,500 00

DEBIT.

Property and debt balance, amount of reduction of funded debt, in 1888.	<u>\$689,500 00</u>
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RENEWALS OF FUNDED DEBT.

CREDIT.

Appropriations, amount authorized by loans	\$27,000 00
<i>Amount carried forward</i>	<u>\$27,000 00</u>

Amount brought forward \$27,000 00

DEBIT.

Property and debt balance, amount of funded
debt renewed in 1888 27,000 00

STATE AID.

CREDIT.

State of Massachusetts, amount paid in 1888
charged to State \$3,943 00

DEBIT.

Cash, paid monthly pay rolls for aid 3,943 00

STATE OF MASSACHUSETTS.

CREDIT.

Taxes, amount assessed \$30,127 50

DEBIT.

Cash, paid State treasurer, State tax 30,127 50

STATE OF MASSACHUSETTS.—STATE AID.

CREDIT.

Cash, received of State Treasurer \$3,611 00
Balance, Dec. 31, 1888, due from State Dec. 10,
1889, to debit in account, 1889 3,802 00
\$7,413 00

DEBIT.

Balance from 1887 \$3,470 00
State Aid, amount paid in 1888 as per
account 3,943 00
\$7,413 00

STATE OF MASSACHUSETTS.—INDIGENT SOLDIERS
AND SAILORS.

CREDIT.

Cash, received of State Treasurer \$426 00
Balance, Dec. 31, 1888, due from State Dec. 10,
1889, to debit in account, 1889 495 50
\$921 50
Amount carried forward \$921 50

Amount brought forward \$921 50

DEBIT.

Balance from 1887	\$415 00	
Indigent soldiers and sailors, one-half of amount paid in 1888, as per account	506 50	
	<hr/>	\$921 50

SUNDRY PERSONS.

CREDIT.

Balance from 1887	\$230 10
Interest, coupons due and unpaid	285 00
	<hr/>
	\$515 10

DEBIT.

Cash, paid sundry persons amounts due them	\$195 00	
Balance to credit in account, 1888	320 10	
	<hr/>	\$515 10

SALARIES.

CREDIT.

Appropriations, amount assessed	\$24,150 00
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DEBIT.

Cash, paid Mark F. Burns, mayor	\$1,000 00	
Charles E. Gilman, city clerk	307 76	
George I. Vincent, " "	2,225 28	
John F. Cole, city treasurer and collector of taxes	3,500 00	
Horace L. Eaton, city engineer	2,200 00	
Selwyn Z. Bowman, city solicitor,	1,167 75	
Thomas M. Durell, city physician,	950 00	
Douglas Frazar, city auditor	450 00	
Charles S. Robertson, clerk of common council	200 00	
George I. Vincent, clerk of as- sessors and committees	162 07	
	<hr/>	
<i>Amounts carried forward</i>	\$12,162 86	\$24,150 00

<i>Amounts brought forward . .</i>	\$12,162 86	\$24,150 00
William P. Mitchell, assistant clerk of assessors and committees	1,400 00	
Jairus Mann, city messenger . .	1,200 00	
Thomas R. Roulstone, superintendent of buildings and street lights	1,600 00	
James R. Hopkins, inspector of buildings	250 00	
Thomas Cunningham, inspector of milk	300 00	
Stillman H. Libby, assessor	650 00	
George W. Hadley, "	650 00	
Benj. F. Thompson, "	650 00	
George W. Bartlett, assistant assessor	250 00	
Dexter F. Bennett, assistant assessor	250 00	
Hiram D. Smith, assistant assessor	250 00	
Samuel T. Richards, assistant assessor	250 00	
Aaron Sargent, treasurer of commissioners of sinking funds . .	50 00	
Harry Watson, assessors' clerk . .	25 00	
John Kenney	25 00	
William H. Whitcomb, janitor of City Hall and Public Library . .	750 00	
C. G. Rowell, registrar of voters, . .	150 00	
S. G. A. Twycross, " "	150 00	
Otis H. Currier, " "	150 00	
George I. Vincent, " "	150 00	
Engineer's assistants	1,832 75	
	<hr/>	
	\$23,145 61	
Excess and deficiency, balance to credit of account	1,004 39	
	<hr/>	
		\$24,150 00

STREET LIGHTS.

CREDIT.

Appropriations, amount assessed . . .		\$16,000 00
Cash, received of Charles Linehan, repairing lamp post . . .	\$13 00	
J. W. Marden, et al., lamp post, . . .	20 00	
J. G. Tewksbury, et al., lamp post	20 00	
		<hr/> 53 00
		<hr/> \$16,053 00

DEBIT.

Cash, paid Somerville Electric Light Co., lighting by electricity . . .	\$9,449 43	
Charlestown Gas Co., lighting by gas	1,783 80	
Cambridge Gas Light Co., light- ing by gas	1,938 61	
Wm. H. Archibald, lighting and care of lamps	447 03	
Frank Moore, lighting and care of lamps	452 40	
Patrick O'Connell, lighting and care of lamps	735 15	
James Tevlin, lighting and care of lamps	511 20	
Thomas F. Casey, lighting and care of lamps	184 80	
Samuel Walker & Co., oil . . .	117 04	
H. W. Raymond, chimneys, etc.	99 46	
Martin Thayer, wood, alcohol . .	42 00	
J. A. Durell, repairs, etc. . . .	51 75	
William B. Holmes, repairs, etc.	8 88	
Jacob Woodbury, " "	1 50	
W. O. Barbour, " "	8 58	
J. Q. Twombly, " "	75	
P. J. Dinn, " "	29 73	
		<hr/>
<i>Amounts carried forward . . .</i>	<i>\$15,862 11</i>	<i>\$16,053 00</i>

<i>Amounts carried forward .</i>	\$15,862 11	\$16,053 00
F. D. Chase, repairs, etc.	14 45	
Howe & Flint, " "	4 05	
Whitney & Snow, " "	1 65	
F. A. Chandler, " "	81	
Bishop & Brother, ladders	5 43	
H. W. Burgess, chimneys	2 60	
John Fuller, lighting sticks	1 75	
William B. Berry & Co., street signs	26 00	
S. H. Libby, premium of insurance	10 00	
J. O. Hayden & Co., printing	5 00	
E. R. Perham & Co., expressing,	90	
R. T. Blackwell, use of wagon	6 00	
E. H. Bright, labor	12 38	
	<hr/>	
	\$15,953 13	
Excess and deficiency, balance to credit of account	99 87	
	<hr/>	
		\$16,053 00

SIDEWALKS.

CREDIT.

Appropriations, amount assessed	\$4,500 00
Sidewalk assessments, assessments levied	3,693 69
	<hr/>
	\$8,193 69

DEBIT.

Cash, paid laborers	\$1,724 66
Jeremiah McCarthy, edgestones,	2,418 37
Sanborn & Hatch, bricks	1,567 30
John Thresher, "	893 03
J. O. Hayden & Co., advertising,	124 05
Sewers account, catch-basin curbs,	14 37
Highways account, labor	658 00
Sidewalk assessments, abatements	1 95
	<hr/>
	\$7,401 73
Excess and deficiency, balance to credit of account	791 96
	<hr/>

\$8,193 69

SIDEWALK ASSESSMENTS.

CREDIT.

Cash, received of sundry persons, assessments	\$4,164 91	
Sidewalks, abatements	1 95	
Balance, to debit in account, 1889	2,093 17	
	<hr/>	\$6,260 03

DEBIT.

Balance from 1887	\$2,566 34	
Sidewalks, assessments levied	3,693 69	
	<hr/>	6,260 03

SEWERS.

CREDIT.

Appropriations, amount assessed		\$9,500 00
Cash, received of Boston & Lowell Railroad Co., catch-basins	\$68 92	
Boston Consolidated Railroad, labor on manholes, etc.	63 18	
Massachusetts General Hospital, annual fee for permission to enter Fitchburg Street sewer	50 00	
Dennis Ryan, puddling	1 00	
C. A. Mongan, "	13 94	
A. W. Bryne, "	10 26	
J. G. Sculley, ballast	22 20	
Sidewalks account, catch-basin curbs	14 37	
	<hr/>	243 87
Sewer assessments, assessments levied		8,744 67
Excess and deficiency, balance to debit of acc't,		657 19
		<hr/>
		\$19,145 73

DEBIT.

Cash, paid laborers	\$6,340 39	
George D. Goodrich & Co., drain pipe	2,902 06	
H. Wellington & Co., cement	139 50	
	<hr/>	
<i>Amount carried forward</i>	\$9,381 95	\$19,145 73

<i>Amounts brought forward</i>	\$9,381 95	\$19,145 73
Sanborn & Hatch, bricks	234 80	
John Thresher, "	24 00	
M. W. Sands, "	9 00	
John F. Ayer & Co., lumber	171 93	
A. Parker, catch-basin stones	424 00	
Seward Dodge, blacksmithing	14 46	
Osgood & Hart, covers	41 67	
W. O. Barbour & Co., traps	52 50	
F. W. Gilbert, rubber boots	67 50	
H. W. Raymond, hardware	16 46	
Howe & Flint, "	5 15	
J. A. Durell, "	75	
Boston Woven Hose Co., repair- ing hose	20 00	
Robert Burlin, binding books	25 00	
Thomas Groom & Co., stationery,	26 50	
City of Boston, water	40 00	
I. H. Brown & Co., lumber	4 46	
Thomas Casey, bricks	24 00	
Leander Greeley, ball and stopper,	1 05	
J. O. Hayden & Co., printing	41 90	
Whitney & Snow, hardware	24 28	
Morse & Whyte, sand screen	7 50	
Fox, McDormand & Co., ladder	2 40	
W. J. Miers, roofing pitch, etc.	5 00	
John Fisher, repairing tub, etc.	4 50	
A. M. Prescott, teaming	75	
Sewall & Day Cordage Co., manila,	11 00	
Somerville Sentinel, advertising	22 25	
D. A. Sanborn, mortar-bed	3 00	
S. J. Wood, filing saws	25	
City of Cambridge, five ninths of expense of cleaning outlet, and repairing Bridge St. sewer,	1,741 28	
Charles A. Mongan, laying drain- pipe	6 51	
<i>Amounts carried forward.</i>	\$12,455 80	\$19,145 73

<i>Amounts brought forward . .</i>	<i>\$12,455 80</i>	<i>\$19,145 73</i>
Arthur W. Bryne, constructing sewer in Highland Ave. . . .	1,174 03	
Arthur W. Bryne, constructing sewer in Cherry Street	76 24	
Arthur W. Bryne, constructing sewer in Cedar and Albion Streets	1,028 44	
Richard Falvey, constructing sewer in Cedar and Albion Streets	1,758 68	
Dennis O'Connell, constructing sewer in Cedar and Albion Streets	1,052 42	
Christopher Burke, constructing sewer in Elm Street	1,270 31	
Christopher Burke, constructing sewer in Franklin Street	25 35	
Dennis Ryan, constructing sewer in Greenville Street	194 21	
Dennis Ryan, constructing man- hole.	40 00	
Dennis Ryan, labor on catch- basin	5 75	
Maurice Buttimer, constructing sewer in Thurston Street	51 20	
Sewer assessments, abatements	13 30	
		<u>\$19,145 73</u>

SEWER ASSESSMENTS.

CREDIT.

Cash received of sundry persons, assessments	\$6,261 37
Sewers, assessments abated	13 30
Balance, to debit in account 1889	6,908 87
	<u>\$13,183 54</u>

DEBIT.

Balance from 1887	\$4,438 87
Sewers, assessments levied	8,744 67
	<u>\$13,183 54</u>

SUPPORT OF POOR.

CREDIT.

Appropriations, amount assessed \$14,000 00

Cash, received for support of paupers:—

Of city of Boston	\$397 60
“ Cambridge	101 01
“ Fall River	3 25
“ Lowell	33 90
“ Lawrence	9 35
“ Salem	43 10
“ Taunton	8 00
Of town of Arlington	35 60
“ Brookline	29 50
“ Groton	11 90
“ Leominster. . . .	20 15
“ Manchester	49 50
“ Stoneham	26 15
“ Sandwich	12 40
“ Woburn	60 30

State of Massachusetts, support of

State paupers	579 24
Burial of State paupers	30 00
Henry Coffin, aid to paupers	326 00
Cyrus B. Austin, aid to paupers	4 00
P. E. Durant, guardian, aid to paupers	108 00
Edward H. Gooding, “ “	76 60
O. S. Knapp, guardian, “ “	169 92
Cornelius Kelley, “ “	45 00
Hugh O’Neil, “ “	10 00
B. Y. Russell, guardian, “ “	102 60

2,293 07

\$16,293 07

DEBIT.

Cash, paid for support of paupers, viz.:—

Commonwealth of Massachusetts	\$844 17
Carney Hospital	139 54

Amounts carried forward \$983 71 \$16,293 07

<i>Amounts brought forward</i> . . .	\$983 71	\$16,293 07
Danvers Lunatic Hospital . . .	1,087 29	
Massachusetts School ^o for the		
Feeble-minded	127 21	
Taunton Lunatic Hospital . . .	212 63	
Worcester Lunatic Hospital . . .	976 82	
Worcester Insane Hospital . . .	459 65	
Westboro Insane Hospital . . .	681 07	
John M. Fiske, House of Correc-		
tion	17 00	
City of Boston	830 55	
“ Cambridge	18 10	
“ Lowell	130 72	
“ Malden	37 85	
“ Newton	10 00	
“ Taunton	53 43	
Town of Hyde Park	37 20	
“ Peabody	513 51	
Mary Burke, rent	72 00	
Mary A. Blackwell, rent	8 00	
Ira H. Bickford, “	60 00	
Bridget Carroll, “	5 00	
Susan Clifford, “	40 00	
Julia Casey, “	12 00	
Timothy F. Crimmings, rent, . .	48 00	
Ellen Driscoll, “	48 00	
Ellen Downey, “	10 00	
Edward Foster, “	48 00	
Thomas Flemming, “	48 00	
Martha Fitzgerald, “	72 00	
Ann Grady, “	22 00	
Ann Gallagher, “	60 00	
Michael Grady, “	8 00	
Sarah Gill, “	72 00	
John I. Loudon, “	30 00	
Sarah McFarland, “	4 00	
John H. McFarland, “	84 00	
<i>Amounts carried forward</i> . . .	\$6,927 74	\$16,293 07

<i>Amounts brought forward</i> . .	\$6,927 74	\$16,293 07
John McGonagle, rent . .	60 00	
John McNamara, " . .	20 00	
Jeremiah McCarthy, rent . .	50 00	
Owen McLaughlin, " . .	44 00	
Ellen McCarron, " . .	48 00	
Mary O'Hare, " . .	48 00	
Charles H. O'Neil, " . .	48 00	
M. B. Pitman, " . .	12 00	
Emily E. Rice " . .	60 00	
George H. Simonds, " . .	48 00	
James Snow, " . .	21 00	
Maurice Terry, " . .	60 00	
Chester Williams, " . .	24 00	
Mary Ash, board . .	120 00	
M. A. Blackwell, board . .	42 01	
Annie Burns, " . .	6 86	
Alice B. Brower, " . .	6 57	
Wells H. Boynton, board . .	4 00	
John Earle, " . .	96 00	
Ellen C. Eagan, " . .	95 92	
Henry Fernald, " . .	4 29	
Sarah J. Hill, " . .	144 00	
Flora Gray, " . .	58 01	
Charles Hutchinson, " . .	52 30	
Ann Kelley, " . .	104 59	
Thomas Kilmartin, " . .	6 00	
Hannah M. Mayo, " . .	169 91	
Frederick J. Miller, " . .	60 00	
Ellen Neagle, " . .	58 73	
Ellen M. O'Donnell, " . .	104 59	
Eugene Shea, " . .	130 69	
D. J. Sawin, " . .	57 00	
Martin Toye, " . .	52 30	
S. D. Carter, meals . .	9 00	
Charles S. Butters, groceries and provisions	38 00	
<i>Amounts carried forward</i> . .	\$8,891 51	\$16,293 07

<i>Amounts brought forward.</i>	\$8,891 51	\$16,293 07
Charles Bartley, groceries and provisions	45 00	
A. F. Carpenter, groceries and provisions	145 50	
J. B. Eastman, groceries and provisions	14 00	
J. J. Guild, groceries and provisions	16 00	
D. E. Hennessey, groceries and provisions	68 50	
James Harris, groceries and provisions	26 00	
George H. Hills & Co., groceries and provisions	478 61	
Knowles Bros., groceries and provisions	66 00	
A. Munroe, groceries and provisions	77 00	
Charles H. North & Co., groceries and provisions	214 90	
Sturtevant Bros., groceries and provisions	80 00	
Frank H. Turner & Co., groceries and provisions	33 01	
William S. Ward, groceries and provisions	370 50	
Albert Fiske, crackers	40 81	
Henry Gray, milk	11 73	
Horatio Wellington & Co., fuel,	646 90	
J. E. Perkins, "	7 75	
E. B. Freeland, "	2 75	
E. R. Perham, "	4 10	
F. W. Estabrook, "	3 50	
S. M. Fuller, "	12 60	
Philip Eberle, boots and shoes	102 30	
W. J. Emerson, " "	1 50	
<i>Amounts carried forward,</i>	\$11,360 47	\$16,293 07

<i>Amounts brought forward.</i>	.. \$11,360 47	\$16,293 07
F. W. Gilbert, boots and shoes, .	34 35	
J. H. Mongan, " " .	26 50	
J. H. Brooks, dry goods . .	33 55	
J. W. Brine, " . .	11 50	
Chas. F. Brine, " . .	2 00	
Thomas Groom & Co., stationery,	38 42	
City of Cambridge, water rates .	5 00	
A. S. Arnold, carpenter work .	3 00	
Agnes Green, labor . . .	6 00	
R. T. Blackwell, carriage hire .	3 00	
George C. Bonner, carriage hire,	2 00	
Wm. J. London, expressing .	60	
Alfred E. Mann, services as un-		
dertaker	50 15	
Horace D. Runey, services as		
undertaker	75 00	
William A. Flaherty, services as		
undertaker	30 00	
P. H. Rafferty, services as un-		
dertaker	10 00	
Joseph J. Kelley, services as un-		
dertaker	10 00	
N. E. Telegraph and Telephone		
Co., tolls	2 00	
Charles C. Folsom, salary as		
agent	1,200 00	
Charles C. Folsom, disburse-		
ments	206 44	
F. W. Kaan, salary as secretary,	250 00	
W. D. Hayden, services . .	14 00	
	<hr/>	
	\$13,373 98	
Excess and deficiency, balance to		
credit of account	2,919 09	
	<hr/>	
		\$16,293 07

SCHOOL FUEL.

CREDIT.

Appropriations, amount assessed	\$6,500 00	
Excess and deficiency, balance to debit of account	621 24	
		<u>\$7,121 24</u>

DEBIT.

Cash, paid B. F. Wild & Co., fuel . . .	\$3,836 05	
Horatio Wellington & Co. fuel . . .	3,276 69	
Thomas Groom & Co., stationery . . .	8 50	
		<u>\$7,121 24</u>

SCHOOL TEACHERS' SALARIES.

CREDIT.

Appropriations, amount assessed	\$40,000 00	
City of Boston, water rates transferred	\$50,412 57	
Cash, sundry persons, salary not paid . . .	7 50	50,420 07
		<u>\$90,420 07</u>

DEBIT.

Cash, paid salaries	\$85,700 66	
Excess and deficiency, balance to credit of account	4,719 41	
		<u>\$90,420 07</u>

SCHOOL CONTINGENT.

CREDIT.

Appropriations, amount assessed	\$17,000 00	
Cash, received for tuition of non-resident pupils : —		
Alfred Boyson	\$12 50	
B. H. Camp	8 00	
Francis Hollis	30 00	
Joseph Hollis	10 00	
William S. McKenzie	15 00	
		<u>\$75 50</u>
<i>Amounts carried forward,</i>	\$75 50	\$17,000 00

<i>Amounts brought forward.</i> .	\$75 50	\$17,000 00
P. Libby, janitor's salary not paid	3 33	
C. E. Meleney, injury to books	6 55	
		85 38
Excess and deficiency, balance to debit of account		766 22
		<hr/> 17,851 60

DEBIT.

Cash, paid Joshua H. Davis, salary as superintendent of schools .	\$750 00	
Disbursements	8 81	
Clarence E. Meleney, salary as superintendent of schools .	1,666 67	
Disbursements	35 50	
Janitors	5,892 13	
L. H. Snow, truant officer .	800 04	
" " " travelling expenses	6 00	
Jairus Mann, truant officer .	49 98	
Harrison Hume, books . .	309 38	
Boston School Supply Co., books	527 36	
Thorp & Adams Manuf'g Co., books	341 15	
Harper & Bros., books . .	373 17	
Leach, Shewell & Sanborn, books	318 12	
Ginn & Co., books	315 89	
D. Appleton & Co., books .	203 02	
B. A. Fowler & Co., " . .	200 00	
Lee & Shepard, "	230 78	
Edward E. Babb & Co., books .	451 06	
D. C. Heath & Co., " . .	101 38	
William Ware & Co., " . .	161 94	
Charles H. Whiting, " . .	141 34	
Thompson, Brown & Co., " .	87 26	
Houghton, Mifflin & Co., " .	57 58	
F. M. Ambrose, "	84 50	
E. H. Butler & Co., " . .	67 50	
<i>Amounts carried forward</i> . .	<hr/> \$13,180 56	<hr/> \$17,851 60

<i>Amounts brought forward</i> . . .	\$13,180 56	\$17,851 60
A. S. Barnes & Co., books . . .	56 25	
Cowperthwait & Co., " . . .	27 62	
Willard Small, " . . .	11 34	
Interstate Publishing Co., " . . .	180 00	
Estes & Lauriat, " . . .	5 00	
A. Lovell & Co., " . . .	5 00	
Carl Schoenhoff, " . . .	7 14	
Van Antwerp, Bragg & Co., " . . .	10 08	
Clark & Maynard, " . . .	10 08	
George F. King & Merrill, station- ery, etc.,	806 56	
M. R. Warren, stationery, etc., . . .	2 00	
Thomas Groom & Co., " " . . .	6 60	
J. L. Hammett, supplies	109 54	
Educational Publishing Co., sup- plies	2 10	
Frost & Adams, supplies	11 22	
Industrial Educational Associa- tion, supplies	7 50	
George Frost & Co., supplies	1 55	
H. Lattimer & Co., "	2 97	
J. S. Sopier, "	61 93	
A. G. Whitcomb, "	9 00	
George S. Perry, "	16 70	
Holden Book Cover Co., sup- plies	128 09	
Cyclostyle Co., "	2 00	
Joseph W. Ripley, binding book . . .	9 80	
Horatio A. Brooks, " "	54 41	
P. Lynam & Sons, mats	47 71	
R. Thompson, "	22 50	
Murphy, Leavens & Co., feather dusters, etc.	44 37	
Paine Furniture Co., furniture	104 75	
Hallett & Davis, piano	235 00	
Hopkins & Fullerton, furniture . . .	7 10	
<i>Amounts carried forward</i> . . .	\$15,186 47	\$17,851 60

<i>Amounts brought forward</i> .	\$15,186 47	\$17,851 60
Jackson Caldwell & Co., carpet,		
etc.	12 71	
H. W. Raymond, hardware .	219 04	
Howe & Flint, " . . .	2 45	
Oscar F. Howe, brooms . .	107 00	
D. A. Scott & Co., brooms .	3 75	
W. L. Snow, hardware, etc. .	8 20	
Charles A. Holmes, " . .	6 15	
J. A. Durell, "	15	
L. D. Miller, polish	8 00	
Wm. H. Kelley, janitors supplies .	1 50	
N. L. Pennock, " " . . .	1 30	
Stewart & Co., clay	5 25	
C. W. Clark, moulding boards, .	9 00	
Kilborn Whitman & Co., bookcase	23 50	
J. Q. Twombly, signs	4 75	
Brine & Norcross, sewing supplies,	12 82	
N. D. Whitney & Co., " . .	2 70	
Mary L. Boyd, "	5 46	
Sarah E. Kilmer, supplies . .	10 00	
O. F. Page, janitor's supplies .	1 30	
George L. Baxter, disbursements,	4 28	
H. L. Morse, "	13 18	
John S. Hayes, "	5 00	
George E. Nichols, " . . .	7 50	
H. D. Newton, "	3 40	
G. A. Southworth, " . . .	5 02	
R. H. Stearns & Co., ribbon .	6 60	
M. W. Carr, travelling expenses,	56 70	
J. O. Hayden & Co., printing, etc.,	439 96	
N. S. Dearborn, "	87 00	
C. A. French, filling diplomas .	50 05	
Publishers Somerville Citizen, ad-		
vertising	6 00	
Somerville Sentinel, advertising .	6 00	
John M. Corse, post-office box .	3 00	
<i>Amounts carried forward</i> .	\$16,325 19	\$17,851 60

<i>Amounts brought forward .</i>	\$16,325 19	\$17,851 60
First M. E. Church, use of church,	100 00	
Thomas Young, flowers . . .	6 85	
H. M. Weld & Co., carriage hire,	4 00	
Chas. E. Farnham, expressing .	3 30	
Wm. J. London, " . . .	4 80	
Barker & Tibbetts, " . . .	31 25	
Thorpe's express, " . . .	18 10	
E. R. Perham, " . . .	7 40	
Stilphen & Co., " . . .	7 25	
B. H. Weeks & Co., " . . .	5 35	
M. G. Staples, teaming . . .	27 50	
Joseph Young, labor . . .	4 25	
S. A. Carvill, " . . .	3 00	
D. H. Rinn, " . . .	8 00	
Wm. H. Whitcomb, labor . . .	2 00	
E. S. Daniels, tuning piano .	6 00	
H. S. Brackett, carpenter work .	11 25	
J. A. McLane, bill posting . .	4 00	
Charlestown Gas Co., gas . . .	68 28	
Cambridge Gas Light Co., gas .	130 38	
Horatio Wellington & Co., fuel .	4 00	
City of Boston, water . . .	730 70	
City of Cambridge, water . . .	24 00	
City of Lowell, board of truants .	314 75	
	<hr/>	\$17,851 60

SCHOOL-HOUSE INCIDENTALS.

CREDIT.

Appropriation, amount assessed	\$10,000 00
Miscellaneous, transferred	\$1,700 00
Watering streets, "	1,000 00
	<hr/>
Cash, received of C. H. Guild, use of ward room	\$3 00
F. X. Williams, old iron	8 81
	<hr/>
	11 81
Excess and deficiency, balance to debit of account,	1,281 94
	<hr/>
	\$13,993 75

Amount brought forward \$13,993 75

DEBIT.

Cash, paid F. A. Chandler, carpenter work	\$777 21	
Geo. W. Trefren, carpenter work,	687 50	
H. S. Brackett, " "	315 88	
S. & C. H. Williams, " "	459 92	
Stephen A. Howe, " "	102 14	
E. J. Cogan, " "	606 00	
Page & Littlefield, " "	147 35	
Leonard Arnold, " "	33 92	
A. S. Arnold, " "	63 80	
Gordon & Packard, " "	40 37	
Thomas Gordon, " "	10 96	
John R. Thompson, " "	68 72	
John D. Hills, " "	84 85	
Z. Flemming, " "	10 25	
F. C. Fuller, " "	3 10	
A. C. Winning, mason work .	348 20	
D. P. Bucknam, " "	191 50	
D. A. Sanborn, " "	9 43	
J. M. Burckes, " "	7 00	
John Kennedy, plastering .	193 15	
L. C. Seavey, slating .	151 55	
Dalton & Ingersoll, plumbing .	189 80	
H. W. Covell & Co., " .	475 60	
J. A. Durell, " .	155 59	
C. A. Legallee, " .	84 82	
James F. Davlin, " .	77 88	
W. H. Poole, " .	8 23	
Williams & Co., " .	173 75	
Fred A. Norris, painting .	160 15	
J. Q. Twombly, " .	119 00	
Daniel McDermott, painting .	216 79	
A. Fisher, " .	383 30	
W. S. Walker, " .	54 85	
M. J. Goodwin, " .	85 20	
<i>Amounts carried forward</i> . .	\$6,497 76	\$13,993 75

<i>Amounts brought forward</i> . .	\$6,497 76	\$13,993 75
F. J. Almeder, painting . .	53 66	
W. P. Walker, " . .	29 15	
J. C. Dyer, " . .	28 87	
J. H. Hollis, " . .	33 05	
J. F. Burton, " . .	23 55	
S. W. Fuller, lumber . .	118 15	
John F. Ayer & Co., lumber .	52 61	
George S. Perry, labor on black- boards	33 60	
J. C. Bell, labor on blackboards .	380 55	
Ramsey Clark, labor on black- boards	4 00	
Jacob Woodbury, blacksmithing,	13 55	
E. Onley, " . .	1 00	
Seward Dodge, " . .	2 80	
Charles A. Holmes, stove and fur- nace work	179 92	
Howe & Flint, stove and furnace work	398 20	
W. B. Holmes, stove and furnace work	106 94	
J. A. Merrifield, stove and fur- nace work	221 87	
George McDormand, stove and furnace work	4 00	
A. A. Sanborn, steam fitting .	729 72	
Albert B. Franklin, " . .	62 99	
H. W. Raymond, hardware . .	54 76	
W. L. Snow, " . .	345 67	
M. C. Warren & Co., hardware .	1 53	
J. A. Durell, " . .	5 00	
Somerville Iron Foundry, hard- ware	34 38	
Whitney & Snow, hardware . .	32 59	
Wm. Hall & Co., " . .	3 19	
Walker & Pratt, Manfg. Co., stove	40 00	
<i>Amounts carried forward</i> . .	\$9,493 06	\$13,993 75

<i>Amounts brought forward .</i>	\$9,493 06	\$13,993 75
Fred. S. Young, gas-fixtures .	1 50	
J. L. Hammett, blackboards .	206 85	
A. G. Whitcomb, desks, etc. .	763 06	
W. H. Brine, bookcase .	16 00	
Holland & Daniels, shades .	74 17	
W. M. Durell, blinds .	75	
W. H. Wood & Co., shingles .	58 00	
E. B. Badger & Sons, gutters .	73 00	
John L. Crafts, rope, etc. .	5 00	
John C. Snow, stair rail .	25 00	
W. M. Hadley, lime .	1 25	
Walter Bates, concreting .	1,525 14	
C. E. Arnold, whitening .	170 00	
Joseph Young, varnishing .	7 50	
J. Turner & Co., stone work, .	19 38	
H. A. Chick & Co., repairing chairs	1 10	
James M. Coburn, labor .	13 50	
O. F. Page, " .	5 75	
James Deacon, " .	15 00	
Joseph Gott, " .	1 50	
D. H. Rinn, " .	3 00	
Owen Finnon, " .	6 00	
E. H. Bright, " .	133 75	
P. O'Connell, " .	27 00	
Anderson & Schofield, labor .	2 00	
D. Crocker, clocks and repairing .	76 00	
Fred. C. Cutter, repairing clocks	15 00	
Henry C. Manning, " .	12 10	
John E. Hill, " .	4 50	
E. R. Perham, expressing .	12 85	
Woodbridge & Co., expressing .	12 25	
W. J. London, " .	75	
Thorpe's Express, " .	75	
M. G. Staples, " .	50	
P. H. Wellcome, hack hire, .	10 00	
<i>Amounts carried forward .</i>	\$12,792 96	\$13,993 75

<i>Amounts brought forward</i>	. \$12,792 96	\$13,993 75
S. J. Wood, fitting keys, etc.	. 58 40	
Miss Winslow, curtains	. 2 40	
R. M. Johnson, removing night soil	. 108 00	
H. W. Burgess, soda	. 1 00	
James Cathburton, soda	. 3 60	
Wm. A. Muzzey, rent	. 75 00	
Geo. D. Wildes, "	. 22 91	
L. M. Jones, "	. 225 00	
H. Libbey & Son, rent	. 34 00	
George B. Haskell, "	. 100 00	
Thomas Groom & Co., stationery	. 9 50	
American Steam Boiler Insurance Co., premium of insurance	. 446 25	
Sewer assessment account, sewer in Highland Avenue	. 49 42	
Sidewalk assessment account, side- walk on Vinal Avenue	. 65 31	
	—————	\$13,993 75

SCHOOL-HOUSE IN WARD TWO.

CREDIT.

Balance from 1887	. \$4,177 55	
Excess and deficiency, balance to debit of account	. 725 95	
	—————	\$4,903 50

DEBIT.

Cash, paid O. S. Knapp, attorney, land on Concord Square	. \$4,903 50
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SCHOOL-HOUSE IN WARD THREE.

CREDIT.

Balance from 1887	. \$395 11
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Amount brought forward \$395 11

DEBIT.

Cash, paid E. Shapleigh, carpenter work	\$46 04	
Police Station, incidentals transferred	349 07	
	<hr/>	\$395 11
		<hr/>

SCHOOL-HOUSE IN WARD FOUR.

CREDIT.

Balance from 1887 \$250 48

DEBIT.

Cash, paid E. Shapleigh, carpenter work	\$46 03	
Police Station incidentals, transferred	204 45	
	<hr/>	\$250 48
		<hr/>

TEMPORARY LOANS.

CREDIT.

Balance from 1887	\$170,000 00	
Cash, borrowed by authority of the City Council on city notes as follows: viz., —		
Commonwealth of Massachusetts on eight months, at $4\frac{1}{2}$ per cent	\$200,000 00	
Brewster, Cobb & Estabrook, on six months, at $3\frac{3}{8}$ per cent	30,000 00	
Commonwealth of Massachusetts, on six months, at 4 per cent	20,000 00	
	<hr/>	<hr/>
<i>Amounts carried forward</i> .	\$250,000 00	\$170,000 00

<i>Amounts brought forward</i> .	\$250,000 00	\$170,000 00
Commonwealth of Massachusetts, on six months, at 4 per cent	50,000 00	
Commonwealth of Massachusetts, on six months, at 4 per cent	50,000 00	
Commonwealth of Massachusetts, on six months, at 4 per cent	20,000 00	
	<hr/>	\$370,000 00
		<hr/>
		\$540,000 00

DEBIT.

Cash, paid as follows: viz., —

Commonwealth of Massachusetts, note dated Dec. 13, 1887	\$50,000 00
F. S. Moseley & Co., note dated Dec. 14, 1887 . . .	25,000 00
F. S. Moseley & Co., note dated Sept. 14, 1887 . .	25,000 00
F. S. Moseley & Co., note dated Sept. 14, 1887 . .	20,000 00
F. S. Moseley & Co., note dated Sept. 30, 1887 . .	25,000 00
Blake Brothers & Co., note dated Dec. 31, 1887 . . .	25,000 00
Commonwealth of Massachusetts, note dated March 13, 1888	200,000 00

	<hr/>	\$370,000 00
Balance to credit in account 1889,	170,000 00	
	<hr/>	\$540,000 00

TAXES.

CREDIT.

Cash, received for taxes for 1882 .	\$26 02	
“ “ “ 1883 .	30 37	
“ “ “ 1884 .	60 60	
“ “ “ 1885 .	127 32	
“ “ “ 1886 .	36,624 64	
“ “ “ 1887 .	61,049 24	
“ “ “ 1888 .	321,743 40	
	<hr/>	\$419,661 59

Real-estate liens, titles to the city for non-payment of taxes of 1886	20 02
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Overlay and abatement:—

Abatements on taxes for 1882 .	\$3,188 06	
“ “ “ 1883 .	3,918 39	
“ “ “ 1884 .	4 00	
“ “ “ 1885 .	10 00	
“ “ “ 1886 .	511 26	
“ “ “ 1887 .	415 40	
“ “ “ 1888 .	2,911 20	
	<hr/>	10,958 31

Balance to debit in account 1889—

Being uncollected taxes for 1884	\$4,010 02	
“ “ “ “ 1885	5,173 04	
“ “ “ “ 1886	5,282 90	
“ “ “ “ 1887	39,956 12	
“ “ “ “ 1888	96,804 00	
	<hr/>	151,226 08
		<hr/>
		\$581,866 00

DEBIT.

Balance from 1887	\$160,407 40	
Appropriations, amount assessed for current expenses . .	371,337 34	
State of Massachusetts, amount assessed for State tax .	30,127 50	
	<hr/>	
<i>Amounts carried forward</i> .	\$561,872 24	\$581,866 00

<i>Amounts brought forward</i>	\$561,872 24	\$581,866 00
County of Middlesex, amount assessed for county tax	16,906 92	
Overlay and abatement, amount added by the assessors	3,086 84	
		<u>\$581,866 00</u>

WATER SERVICES.

CREDIT.

Cash, received of Joseph Balch, service pipe, etc.	\$12 15
William E. Bailey, service pipe, etc.	18 75
R. P. Benton, service pipe, etc.	33 31
E. E. Davis, " " "	12 22
Patrick Farrell, " " "	5 10
D. Follett, " " "	10 50
George Fitz, " " "	6 48
C. R. Goodrich, " " "	12 99
Charles J. Heald, " " "	12 00
Edward Hartshorn, service pipe, etc.	11 76
L. P. Hollander, service pipe, etc.	28 12
John D. Hills, " " "	10 80
Alson Knight, " " "	10 00
George Lattimore, " " "	11 01
William Lynch, " " "	5 00
A. L. Lovejoy, " " "	42 00
Alexander Miller, " " "	10 00
John Medina, " " "	5 52
Christopher Martis, " " "	2 90
O. H. Perry & Co., " " "	19 85
George S. Phillips, " " "	9 55
J. A. Porter, " " "	3 50
Hazen Sturtevant, " " "	9 74
George H. Sallaway, service pipe, etc.	7 00
<i>Amounts carried forward</i>	<u>\$310 25</u>

<i>Amounts brought forward</i>	\$310 25	
Daniel C. Stillson, service pipe,		
etc.	13 75	
John Swan, service pipe, etc.	10 80	
F. L. Temple, old pipe	23 28	
Hiram L. White, pipe, etc.	7 53	
William Young, " "	15 90	
Luther Reed, repairs	2 50	
Simeon F. Robinson, pipe, etc.	28 30	
Miner Van Dusen, " "	11 00	
Q. A. Vinal, fittings	4 60	
N. M. Lowe, " "	23 40	
Watering streets account, labor,		
etc.	30 03	
	<hr/>	
	\$481 34	
Water service assessments, pipes laid,		
cost of services	7,461 95	\$7,943 29
	<hr/>	

DEBIT.

Cash, paid laborers	\$2,668 63	
Boston Lead Manufacturing Co.,		
lead pipe	216 96	
George K. Paul & Co., iron pipe	1,330 47	
Sumner & Goodwin, fittings	587 75	
Fred H. Hilton & Co., "	1,073 86	
W. H. Ward & Co., "	33 75	
Stults & Mansur "	15 34	
Chapman Valve Manufacturing		
Co., fittings	33 32	
Henry McShane & Co., fittings	68 69	
Dalton & Ingersoll, fittings	8 67	
Hoffman & Billings, "	6 00	
Davis & Farnum Manuf'g. Co.,		
service boxes	625 46	
Gilchrist & Gorham, tools	6 50	
A. J. Wilkinson & Co., "	22 72	
	<hr/>	
<i>Amounts carried forward</i>	\$6,698 12	\$7,943 29

<i>Amounts brought forward</i>	\$6,698 12	\$7,943 29
Walworth Manuf'g. Co., pipe fittings, etc.	532 92	
John H. Stevens & Co., hydrant fittings, etc.,	1 25	
Somerville Iron Foundry Co., castings	1 84	
American Tube Works, tubes	15 50	
John S. Rice & Co., tank	7 00	
Hermas Strater & Sons, pump	4 55	
Boston Bolting Co., hose, etc.,	39 32	
Boston Woven Hose Co., hose, etc.,	5 00	
Henry McShane & Co., hose bibs	25 58	
Boston Bolt Co., bolts, etc.	33 23	
James Grundy & Co., repairing pump	2 18	
Hall Rubber Co., rubber mittens	5 13	
W. L. Snow, hardware	11 30	
H. W. Raymond, "	79	
George H. Mason, "	2 75	
Wm. T. Henderson, wagon	175 00	
Richard Dowd, plumbing	5 50	
Henry C. Folgier, "	2 05	
Charles A. Holmes, "	3 14	
William B. Holmes, "	2 50	
S. J. Wood, key	25	
Barker & Tibbetts, expressing	5 55	
Chas. E. Farnham, "	50	
Hannah W. Brooks, damages	12 25	
Water maintenance, balance	\$7,593 20	
transferred	350 09	
		<u>\$7,943 29</u>

WATER SERVICE ASSESSMENTS.

CREDIT.

Cash received of sundry persons for water services	\$7,077 66	
Balance to debit in account, 1889	1,746 02	
		<u>\$8,823 68</u>

Amount brought forward \$8,823 68

DEBIT.

Balance from 1887	\$1,361 73	
Water services, service pipes laid in 1888	7,461 95	
	<hr/>	<u>\$8,823 68</u>

WATER MAINTENANCE.

CREDIT.

Appropriations, amount assessed		\$19,000 00
Cash received of the town of Arlington, clamps, etc.	\$12 30	
Seward Dodge, wagon	30 00	
Charles F. Davis, repairing hydrant	16 00	
Davis & Farnum Manuf. Co., old iron	20 02	
Somerville Iron Foundry Co., old iron	9 50	
Somerville Electric Light Co., damages	10 00	
Highways account, setting fountain	37 28	
Miscellaneous account, thawing pipe at City Hall	56 05	
Chas. J. Simpson, part cost of laying pipe	100 00	
Water services, transferred	350 09	
	<hr/>	641 24
		<u>\$19,641 24</u>

DEBIT.

Cash, paid laborers	\$9,719 06	
Nathaniel Dennett, salary as Superintendent	1,500 00	
Disbursements	19 00	
	<hr/>	
<i>Amounts carried forward</i>	\$11,238 06	<u>\$19,641 24</u>

<i>Amounts brought forward</i>	\$11,238 06	\$19,641 24
Frederic W. Stone, salary as Clerk	200 00	
Disbursements	5 37	
Chapman Valve Manufacturing Co., gates	41 82	
Davis & Farnum Manufacturing Co., castings	805 50	
Boston Lead Manufacturing Co., lead	264 37	
Boston Belting Co., washers, etc.	36 24	
Watson & Bisbee, plugs	9 00	
Samuel Osborn & Co., steel	6 30	
Whittier Machine Co., repairing gate	25 95	
Holyoke Hydrant and Iron-works, repairing hydrants	29 61	
Boston Woven Hose Co., wrenches	5 00	
Boston Bolt Co., clamps	1 50	
Whitney & Crowther, use of boiler	9 00	
Pond, Steele & Hanson, boiler	12 75	
Fulton Iron Foundry Co., kettle	5 75	
Edson Manufacturing Co., pump	9 84	
Walworth Manufacturing Co., pump	7 85	
Somerville Iron Foundry, clamps	180 55	
Jaques Brothers, patterns	58 70	
Randall, Goodale & Co., packing.	9 87	
I. H. Brown & Co., molding	76	
Miller & Shaw, blocks	10 93	
R. Warner & Co., pails	1 50	
Sewall & Day Cordage Co., cordage	22 95	
Union Glass Co., lantern glasses	20 35	
George H. Mason & Co., lantern	6 25	
C. S. Harris, gas burners	3 00	
Guptell & Steers, tools	7 09	
<i>Amounts carried forward</i>	<hr/> \$13,035 86	<hr/> \$19,641 24

<i>Amounts brought forward</i>	.\$13,035 86	\$19,641 24
Elliott, Barnes & Co., leather .	5 00	
Samuel Walker & Co., oil .	29 97	
H. W. Raymond, hardware .	109 35	
Whitney & Snow, " .	40 22	
W. L. Snow, " .	12 57	
Charles A. Holmes, " .	4 98	
A. J. Wilkinson & Co., hardware	5 44	
Dodge, Haley & Co., " .	17 02	
S. W. Fuller, lumber .	67 57	
Carter & Haskell, brooms,	2 13	
Geo. H. Sampson, powder .	41 04	
Brown & Call, repairing wagon .	13 20	
H. Stewart, wagon .	135 00	
Geo. D. Goodrich, drain pipe .	91	
N. E. Fitz & Co., cement .	2 75	
L. G. Burnham & Co., cement, .	2 90	
Hall & Welch, horse .	175 00	
Spencer Child, use of horse .	38 00	
H. Wellington & Co., fuel .	302 87	
J. J. Underhill " .	66 50	
J. A. Porter & Co., " .	11 50	
City of Boston, water .	14 00	
Cambridge Gas Light Co., gas .	25 25	
Charlestown Gas Co., " .	13 88	
James E. Whitaker & Co., hay .	260 53	
Charles B. Edgerly, grain .	99 00	
Fulton O'Brion, " .	65 48	
R. W. Willey & Co., " .	91 50	
A. M. Prescott, " .	6 32	
E. S. Conant, salt .	6 00	
Mrs. Van Dusen, filling .	11 50	
New England Telephone and Telegraph Co., rentals and tolls .	80 30	
Thomas Groom & Co., stationery,	11 70	
Hooper, Lewis & Co., " .	1 25	
<i>Amounts carried forward</i>	.\$14,806 49	\$19,641 24

<i>Amounts brought forward</i>	\$14,806 49	\$19,641 24
J. O. Hayden & Co., printing, etc.,	22 70	
J. H. Brooks, duck	2 50	
D. H. Smith, "	3 50	
Geo. H. Cowdin, drugs	5 45	
Thomas Hollis, "	6 50	
L. Albert Smith, "	1 00	
J. McCarthy & Sons, charcoal	19 25	
Charles R. Simpson, veterinary services	35 25	
J. F. Hefferman, pasturage,	12 00	
J. H. Mongan, rubber boots	20 50	
Philip Eberle, " "	3 50	
Jeremiah McCarthy, teaming	34 50	
John Walsh, "	4 50	
Steele & Webster, "	78 63	
Thorpe's Express, expressing	1 15	
Barker & Tibbetts, "	1 65	
W. J. London, "	1 50	
George T. Day, "	25	
E. R. Perham, "	1 25	
Crane & Wood, premium of insurance	20 00	
M. G. Staples, teaming	3 40	
Timothy O'Brien, horseshoeing	61 25	
Charles Maguire, "	17 51	
Seward Dodge, blacksmithing	90 73	
Oliver Williams, "	3 25	
John Kellogg, "	4 10	
E. Spalding, harness work	28 15	
D. J. Bennett, " "	8 50	
W. B. Holmes, plumbing	31 74	
E. H. Buxton, painting	7 00	
S. J. Wood, filing saws	2 00	
Sundry persons, reporting leaks	31 00	
Mrs. Magee, compensation for damages	2 00	
<i>Amounts carried forward</i>	<hr/> \$15,372 70	<hr/> \$19,641 24

<i>Amounts brought forward,</i>	\$15,372 70	\$19,641 24
Mrs. E. A. Warner, compensation for damages	2 50	
Dennis Ryan, compensation for damages	10 00	
Patrick McGrath, compensation for damages	50 00	
George J. Flitner, compensation for damages	115 00	
A. C. Winning, paid by him for damages	10 00	
Richard Dowd, paid by him for damages	10 00	
	<hr/>	
	\$15,570 20	
Excess and deficiency, balance to credit of account	4,071 04	
	<hr/>	
		<u>\$19,641 24</u>

WATER-WORKS EXTENSION.

CREDIT.

Appropriations, amount appropriated by borrow- ing on funded debt account	\$25,000 00
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DEBIT.

Cash, paid laborers	\$6,195 49	
Chapman Valve Manufacturing Co., gates and hydrants	1,323 56	
R. D. Wood & Co., iron pipe	8,492 78	
George K. Paul & Co., pipe	123 42	
Boston Lead Manuf'g Co., lead	529 61	
Chadwick Lead Works, "	26 35	
Somerville Iron Foundry, cast- ings	314 64	
Davis & Farnum Manufacturing Co., castings	801 01	
	<hr/>	
<i>Amounts carried forward</i>	\$17,806 86	\$25,000 00

<i>Amounts brought forward</i>	\$17,806 86	\$25,000 00
Holyoke Hydrant & Iron Works,		
hydrant	33 00	
Whittier Machine Co., gate	14 25	
Boston Bolt Co., bolts	28 53	
John P. Downey, granite	50 54	
S. W. Fuller, lumber	79 30	
John F. Ayer & Co., lumber	6 74	
Sewall & Day Cordage Co., pack-		
ing	25 67	
N. E. Fitz & Co., wharfage	73 31	
A. W. Bryne, excavating	195 20	
George McKenna, teaming	48 00	
Steele & Webster, "	379 51	
John Walsh, "	22 50	
M. G. Staples, "	11 13	
J. O. Hayden, paid by him for		
freight	564 35	
	<hr/>	
	\$19,338 89	
Balance to credit of account 1889,	5,661 11	
	<hr/>	
		<u>\$25,000 00</u>

WATERING STREETS.

CREDIT.

Appropriations, amount assessed	\$3,500 00
Cash, received of abutters	5,710 46
	<hr/>
	\$9,210 46

DEBIT.

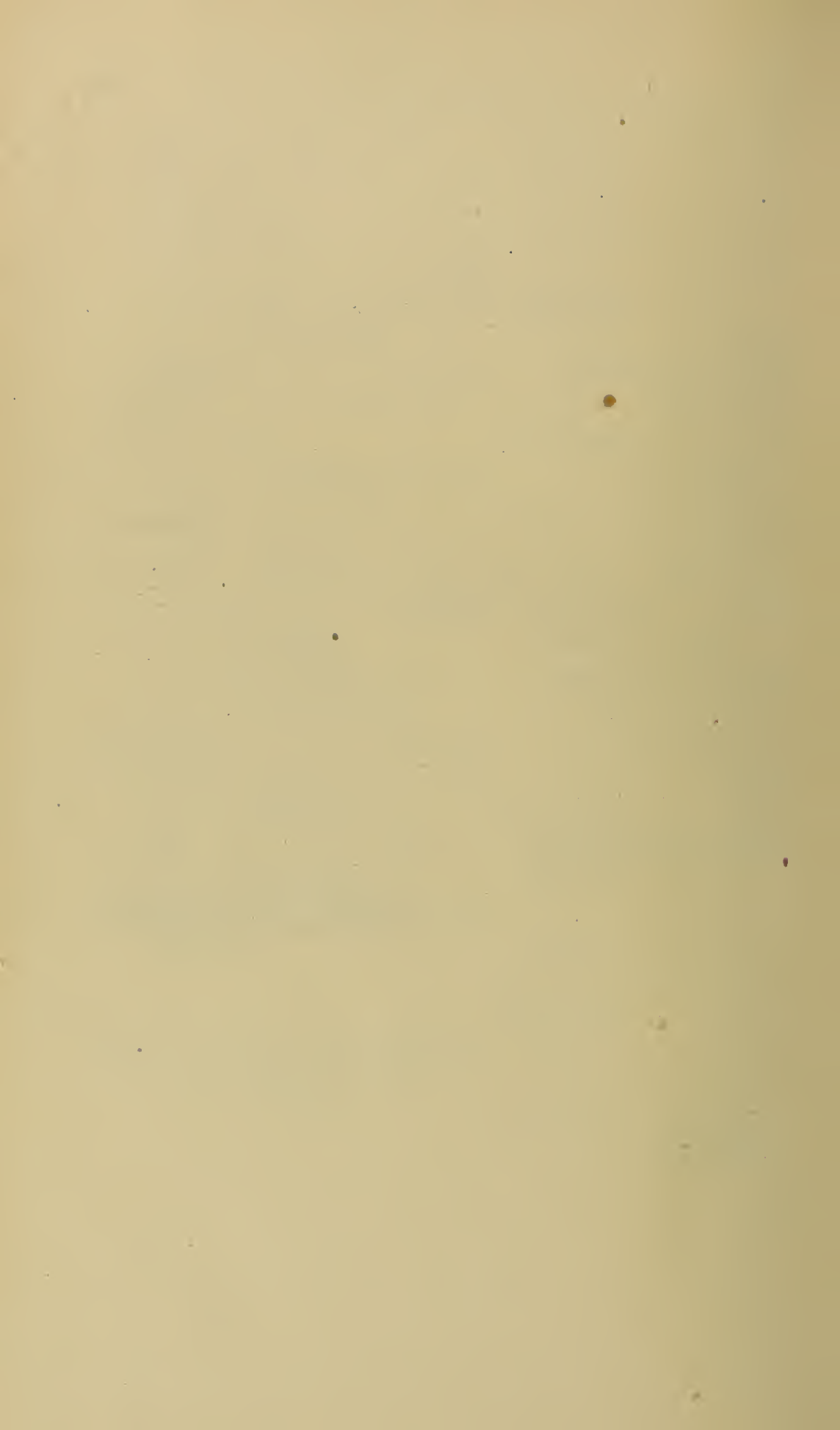
Cash, paid Frank Buttmer, watering, \$410 17	
T. F. Crimmings, " 333 10	
Owen Cunningham, " 362 23	
John P. Downey, " 234 26	
Charles Faulkner, " 405 25	
John F. Elkins, " 317 25	
	<hr/>
<i>Amounts carried forward</i>	<i>\$2,062 26 \$9,210 46</i>

<i>Amounts brought forward</i>	\$2,062 26	\$9,210 46
Henry Gray, watering,	399 70	
Henry McAvoy, "	377 10	
George McKenna, "	450 90	
Abigail O'Brine, "	363 40	
A. M. Prescott, "	438 82	
John Walsh, "	493 30	
Boston Woven Hose Co., hose	40 64	
S. D. Hicks & Son, repairing cart,	2 00	
Seward Dodge, repairing carts	70 21	
L. A. Wright, " "	7 10	
Charles T. Southwick, repairing carts	3 45	
Estate of John Leland, repairing carts	22 80	
Whitney & Snow, hardware	1 46	
E. Spalding, strap	1 00	
F. H. Flagg, repairs	50	
W. H. Miller, watering cart	365 00	
John E. Stevens, painting	135 55	
Thomas Groom & Co., stationery,	4 50	
J. O. Hayden & Co., advertising,	13 30	
McDonnell Bros. "	4 50	
C. E. Farnham, expressing	50	
Robert Farrell, labor	38 00	
City of Boston, water	2,777 92	
Water Service Account, stand pipes, etc.	30 03	
	<hr/>	
	\$8,103 94	
School-House Incidentals transferred,	1,000 00	
Excess and deficiency, balance to credit of account	106 52	
	<hr/>	
		\$9,210 46

TABLE D.

BALANCES DECEMBER 31, 1888.

Cash	\$20,101 85	
Excess and deficiency		\$3,139 13
Funded debt		860,500 00
Hose-house in Ward Four		7,486 60
Overplus on tax sales		102 13
Public property	1,287,023 44	
Property and debt balance		426,523 44
Real estate liens	335 58	
State of Massachusetts, State aid	3,802 00	
State of Massachusetts, indigent soldiers and sailors	495 50	
Sidewalk assessments	2,093 17	
Sewer, assessments	6,908 87	
Sundry persons		320 10
Temporary loans		170,000 00
Taxes	151,226 08	
Water service assessments	1,746 02	
Water works extension		5,661 11
	<hr/>	<hr/>
	\$1,473,732 51	\$1,473,732 51
	<hr/>	<hr/>



REPORT OF THE SCHOOL COMMITTEE.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN,
Feb. 28, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEO. I. VINCENT, *Clerk*.

IN COMMON COUNCIL, Feb. 28, 1889.

Referred to the committee on printing, to be printed in the annual reports, in concurrence.

CHAS. S. ROBERTSON, *Clerk*.

SCHOOL COMMITTEE, 1888.

HON. MARK F. BURNS, Mayor, Chairman, *ex-officio*.

GEORGE O. PROCTOR, President of the Common Council, *ex-officio*.

WARD ONE.

S. NEWTON CUTLER, Pearl Street . . .	Term expires 1888.
HORACE C. WHITE, M.D., Perkins Street . .	" " 1889.
H. P. HEMENWAY, M.D., Perkins Street . .	" " 1890.

WARD TWO.

ALPHONSO H. CARVILL, M.D., Bow Street . .	Term expires 1888.
JAMES F. BEARD, Prospect Hill Avenue . .	" " 1889.
CHARLES I. SHEPARD, Vinal Avenue . . .	" " 1890.

WARD THREE.

NORMAN W. BINGHAM, School Street . . .	Term expires 1888.
Q. E. DICKERMAN, Highland Avenue . . .	" " 1889.
WILLIAM P. HILL, Sycamore Street . . .	" " 1890.

WARD FOUR.

PROF. BENJ. G. BROWN, Professors' Row . .	Term expires 1888.
H. P. MAKECHNIE, M.D., Elm Street . . .	" " 1889.
MARTIN W. CARR, Craigie Street . . .	" " 1890.

J. H. DAVIS, *Superintendent and Secretary until May 1st, 1888.*
15 Myrtle Street, East Somerville.

C. E. MELENEY, 55 Columbus Avenue.

Office hours, at Public Library, from 4 to 5 P. M., each day that the schools are in session.

STANDING COMMITTEES, 1888.

High School—MESSRS. WHITE, BROWN, CARVILL, BINGHAM, DICKERMAN,
BEARD, MAKECHNIE, CUTLER.

Schools in East Somerville District—MESSRS. CUTLER, HEMENWAY, WHITE,
MAYOR BURNS.

Schools in Prospect Hill District—MESSRS. BEARD, CARVILL, SHEPARD.

Schools in Winter Hill District—MESSRS. DICKERMAN, HILL, BINGHAM.

Schools in Spring Hill District—MESSRS. CARR, MAKECHNIE, PROCTOR.

Schools in West Somerville District—MESSRS. BROWN, CARR, MAKECHNIE.

Rules and Regulations—MESSRS. CUTLER, SHEPARD, HILL, CARR.

Examination of Teachers—MESSRS. HEMENWAY, CARVILL, BROWN.

Text Books—MESSRS. SHEPARD, HILL, CARR, HEMENWAY, BINGHAM,
BEARD, WHITE.

Music—MESSRS. BINGHAM, MAKECHNIE, BEARD, CUTLER.

Evening Schools—MESSRS. DICKERMAN, BROWN, SHEPARD, CUTLER.

Drawing and Penmanship—MESSRS. MAKECHNIE, DICKERMAN, CUTLER,
SHEPARD.

Approval of Private Schools—MESSRS. BEARD, BROWN, DICKERMAN, CUTLER.

School Supplies—MESSRS. CARVILL, CARR, HILL.

Finance—MESSRS. CARR, BINGHAM, BEARD.

Salaries—MESSRS. BROWN, CARR, HEMENWAY, HILL, CARVILL.

Repairs and Heating Apparatus—MESSRS. HILL, CUTLER, MAKECHNIE,
BEARD, PROCTOR.

Additional School Accommodations—MAYOR BURNS, MESSRS. PROCTOR,
CARVILL,
BROWN, WHITE, HILL.

Fuel—MESSRS. PROCTOR, MAKECHNIE, CARVILL.

Examination of First Class—MESSRS. DICKERMAN, BROWN, CUTLER, CARVILL.

Examination of Second Class—MESSRS. BINGHAM, CARR.

Examination of Third Class—MESSRS. HILL, HEMENWAY.

Examination of Fourth Class—MESSRS. SHEPARD, MAKECHNIE.

Examination of Fifth Class—MESSRS. BEARD, PROCTOR.

Examination of Sixth Class—MESSRS. WHITE, MAKECHNIE.

SCHOOL COMMITTEE, 1889.

HON. CHARLES G. POPE, Mayor, Chairman, *ex-officio*.

ALBERT W. EDMANDS, President of the Common Council, *ex-officio*.

WARD ONE.

HORACE C. WHITE, M.D., 149 Perkins Street .	Term expires 1889.
H. P. HEMENWAY, M.D., 143 Perkins Street .	“ “ 1890.
S. NEWTON CUTLER, 28 Flint Street . . .	“ “ 1891.

WARD TWO.

JAMES F. BEARD, 17 Prospect Hill Avenue .	Term expires 1889.
CHARLES I. SHEPARD, 33 Vinal Avenue .	“ “ 1890.
ALPHONSO H. CARVILL, M.D., 18 Bow Street	“ “ 1891.

WARD THREE.

Q. E. DICKERMAN, Highland Avenue . .	Term expires 1889.
WILLIAM P. HILL, Sycamore Street . .	“ “ 1890.
NORMAN W. BINGHAM, 235 School Street .	“ “ 1891.

WARD FOUR.

H. P. MAKECHNIE, M.D., 238 Elm Street .	Term expires 1889.
MARTIN W. CARR, Craigie Street . . .	“ “ 1890.
MRS. ADDIE B. UPHAM, 21 Newbury Street .	“ “ 1891.

CLARENCE E. MELENEY, *Superintendent and Secretary*.
55 Columbus Avenue.

Office hours, at Public Library, from 4 to 5 P. M., each day that the schools are in session.

STANDING COMMITTEES, 1889.

High School—MESSRS. CARVILL, BINGHAM, DICKERMAN, BEARD, CUTLER,
MAKECHNIE, WHITE, CARR.

Schools in East Somerville District—MESSRS. HEMENWAY, WHITE, CUTLER.

Schools in Prospect Hill District—MESSRS. CARVILL, SHEPARD, BEARD,
MAYOR POPE.

Schools in Winter Hill District—MESSRS. HILL, BINGHAM, DICKERMAN.

Schools in Spring Hill District—MESSRS. CARR, MAKECHNIE, EDMANDS.

Schools in West Somerville District—DR. MAKECHNIE, MRS. UPHAM,
MR. CARR.

Rules and Regulations—MESSRS. CUTLER, SHEPARD, HILL, CARR.

Examination of Teachers—DR. CARVILL, MRS. UPHAM, DR. HEMENWAY.

Text-Books—MESSRS. HILL, CARR, HEMENWAY, BINGHAM, BEARD,
WHITE, SHEPARD.

Music—MESSRS. MAKECHNIE, BEARD, CUTLER, BINGHAM.

Evening Schools—MESSRS. SHEPARD, CUTLER, CARR, DICKERMAN.

Drawing and Penmanship—MESSRS. DICKERMAN, CUTLER, SHEPARD,
MAKECHNIE.

Industrial Education—MESSRS. CARR, CUTLER, SHEPARD, HILL,
MAKECHNIE, MRS. UPHAM.

Approval of Private Schools—MRS. UPHAM, MESSRS. DICKERMAN, BEARD.

School Supplies—MESSRS. WHITE, CARR, HILL, CARVILL.

Finance—MESSRS. BINGHAM, CARR, BEARD.

Salaries—MESSRS. HEMENWAY, HILL, CARVILL, CARR.

Repairs and Heating Apparatus—MESSRS. BEARD, MAKECHNIE, HEMENWAY,
HILL.

Additional School Accommodations—MAYOR POPE, MESSRS. EDMANDS,
CARVILL, WHITE, HILL.

Fuel—MESSRS. EDMANDS, MAKECHNIE, CARVILL.

Examination of Ninth Class—MESSRS. CARR, BINGHAM, SHEPARD,
HEMENWAY.

Examination of Eighth Class—MESSRS. MAKECHNIE, CARVILL.

Examination of Seventh Class—MESSRS. BEARD, EDMANDS.

Examination of Sixth Class—MESSRS. WHITE, MAKECHNIE.

Examination of Fifth Class—MESSRS. CUTLER, HILL.

Examination of Fourth Class—MR. DICKERMAN, MRS. UPHAM.

ANNUAL REPORT OF SCHOOL COMMITTEE.

The School Committee make an exception, this year, to the usual custom of presenting the Report of the Superintendent of Schools as the Annual Report of the Board; and, in accordance with a vote passed at the December meeting, respectfully present the following as the Annual Report for the year 1888.

The School Committee, by the City Charter, is entrusted with the care and management of the Public Schools.

The City Council, appreciating the importance of this trust, have appropriated one third of the entire tax levy for its maintenance, and they are justified in expecting results equally generous and correspondingly satisfactory.

As a report of the management of this trust, we take pride in presenting the present condition of the schools throughout the city, with the hope that the citizens will not only read the printed reports of theories and tabulated facts, but will visit the schools, and, from personal knowledge, be able to advise and co-operate with the Committee in their improvement.

All the departments of our growing city are in the midst of important changes. The spirit of the age, that demands such improvements as the electric light, the police signal system, and improved convenience for travel and communication for the city, is equally exacting in the line of school work. Methods, material, and conditions are the subjects of constant thought and trial, with a view to better results by a wise and more economical expenditure of the valuable time and energy of school life.

The old is constantly called upon to give way for the new. To many the old is precious from association and experience. Conservatism and economy, with the teachers as well as among the citizens, hold tenaciously to old methods and material, that have served their own purpose so well, and listen with incredulity to any plans that suggest change, even for improvement. Although

it is the policy of the Board to try no experiments, nor trifle with the valuable trusts committed to their charge, yet some changes are being gradually made that the experience of other municipalities, similarly situated, have proved to be useful and desirable. In some cases the benefits will not be immediately apparent, for, even after a change has been made by the Board, it is introduced very slowly, and nothing radical is allowed to interrupt the progress of the schools.

By the resignation of Mr. Joshua H. Davis, the city lost the valued services of a superintendent whose long employment in the interest of her schools had made him intimate with the wants and conditions of every department of the work and section of the city. He had a personal acquaintance, not only with all the teachers, but many of the scholars. This knowledge was invaluable to the Board, in the consideration of many of the questions of detail which are constantly before them. His policy was ever to hold fast to that which had proved valuable to the pupils, and await the experience of others before adopting changes that were urged upon his consideration. The general satisfactory condition of the schools as he left them, show him to have been well abreast of the times in all educational lines of thought and practice. We take pleasure in paying tribute to his efficient and progressive administration. His genial and courteous manner will ever be remembered by his associates in the school work of the city. In him the scholars had a warm friend, and the example of a consistent Christian gentleman. With his farewell report, we appropriately close the first volume of our school history as a city.

At the February meeting, the Board unanimously elected, as the successor of Mr. Davis, Mr. Clarence E. Meleney, of Paterson, N. J., in accordance with the recommendation of a committee appointed to nominate a Superintendent of Schools; and we feel certain that his first annual report, as herewith submitted, will be read with interest, and that the action of the Board will be endorsed by the citizens, who will feel that the schools are in good hands, and under a wise and progressive management. He comes to us a man in the forefront of educational progress, with an experience that has left a record, honorable to himself and creditable to his city. We desire his services among our schools

as Superintendent; and that the Board may have this, the relations of Superintendent, Secretary of the Board, and Principals should be clearly defined as to their duties and responsibilities. We cannot afford to have the time of so valuable and important an official as the Superintendent altogether taken up with the details of his position. The Principals also are needed in their positions at the head of the teaching force of the large buildings. Most cities have two masters in each building of ten or twelve rooms. We have but one, and we cannot spare them from their places, that they may help out the Superintendent while he is occupied with detail. These faithful public servants are all doing what they can in harmony, and by mutual assistance, to promote the educational interests of the city; but we would suggest the importance of having such accommodations furnished the Superintendent as would enable him to attend to the supervision of the teachers and scholars and relieve the Principals, that they may devote themselves to their legitimate spheres of action, which are fully as important and of more direct and personal influence on the welfare of their classes and character of the scholars.

The purchase and distribution of text-books and supplies are of such infinite detail that their demands upon the Superintendent, together with the time required for the selection and employment of teachers, have of late taken him almost out of the schools in his supervising and advising capacity. This year an office has been provided for the use of the Superintendent, which has been temporarily located in the Public Library Building. An assistant has also been furnished, and the amount of business that is transacted here, in the interest of the schools, shows its importance and necessity. It is proposed to put this department on a permanent and substantial basis, and organize it in a practical way. The Superintendent's office becomes, as soon as established, headquarters for all supplies, etc., covered by the appropriation for school contingent, which now amounts to about twenty thousand dollars; and this, together with the school salary appropriation, makes an amount of clerical work that must be provided for. Other departments of the city have their clerks and store-rooms; but, as it is only recently that all text-books and supplies have been furnished at public expense, on

account of which this department has gradually grown to its present proportions, no provision has been made for it. In one of the new school buildings hereafter to be erected, a large room should be provided as the office of Superintendent of Schools, with appropriate store-rooms for supplies of convenient access.

No supplies should be sent to the schools from the dealers, but they should be received at this office, and the bill for the same should here be checked. The quality of the materials should be examined, that the Board may be certain that the city gets the benefit in number, amount, and quality of every article paid for. From here the supplies can be distributed to the various buildings or teachers by authorized requisition. All text-books not in use in the schools should be returned to this office to prevent accumulation in the closets of the various buildings, and allow an inspection that would discard the worn out, and repair the damaged. Here such property could be insured against loss by fire, and accounted for against negligence and carelessness. Of course this means what some would call "red tape"; but it is necessary with all matters of public finance, that there should be established reasonable guards against mistakes and frauds, and a certain amount of convenient arrangements for the performance of public service by elected officials, who are the responsible parties in such matters.

Such a department will properly admit of a reconstruction of the financial methods of the Board, so that sub-committees, by a more intimate knowledge of the purchases in their various departments, may approve the bills for the same, rather than that the whole duty should be imposed upon the Committee on Finance.

No one other than a regularly authorized committee and no member of a committee, except by direction of that committee, should contract a bill of any kind, for any purpose, on behalf of the school board.

It has been suggested that the Committee on Text-Books, Music, Drawing and Penmanship should make all purchases authorized by the Board and approve the bills for the same; and that a Committee on Printing should authorize and recommend all blanks etc., to be used by the schools. It is impossible to do this in this way without some one place and some clerical

assistance, as no man can give the time required for such duties on the part of the committee if he must arrange with all the teachers and visit all the schools; but, with the facts all at hand in the Superintendent's office, the legally authorized officials will not find it necessary to delegate their duties to one who should be devoted to other branches of the service.

Additional school room accommodation is a subject that requires more or less space in every school report. Our immediate wants in this direction have so long been under consideration that the needs of Wards Two and Four have come to be generally recognized. We feel encouraged to think that the coming year will see at least two new buildings well under way, if not completed. Our rapid growth as a city demands a careful consideration of this important question. Nothing proves so attractive to the class of citizens we would invite to become residents of our city as good schools in commodious buildings. We are now so crowded that not only is the efficiency of our schools restricted, but the health of the teachers and pupils is endangered by the fact that so many are confined in the rooms in excess of the number that the air space will accommodate under sanitary restrictions. In many instances we are employing two teachers in a single class room, a practice at once expensive and inefficient. And the outside rooms employed for school purposes are unsatisfactory to the school authorities because of their isolation, which takes from the pupils the advantages of the association and the direction provided in larger buildings; and to the parents, because they feel that their children are not receiving all the benefits given the children of their neighbors, who are not obliged to put up with these make-shifts.

Several of our school buildings are so old that it must soon be as important a consideration to provide for their abandonment as to provide additional school accommodations.

The primary schools are doing good work. The budding intelligence of the little folks is being directed by means of methods that will please and gratify any who have not recently visited this department.

The Kindergartens established this year have proved valuable additions to this work, although, in the main, they are overflow classes from the crowded primary schools. We have not yet felt

that our finances would warrant their establishment for scholars under the school age, although in some sections of the city, where "children are five at a very early age," they would accomplish for the children of poor parents what many of our citizens are doing at home, or at private expense.

The committee are in hopes, at some early day, to extend the systematic instruction of music to this grade, by rearranging the course of musical instruction. The advantages of this instruction are so easily apparent in other cities, that we should no longer hesitate in this matter.

The grammar schools are the nucleus of the whole system of public education in our city, and of great importance from the fact that many of the scholars have no other educational opportunities. The corps of teachers in charge is at once complete and efficient, and the schools show good results.

It is important that the valuable services of these trained and successful teachers should be given as much to the pupils as possible, rather than taken up by the preparation of examinations and classifications of results, which do not advance the pupil nor improve the teacher. Both should have every opportunity to impress each other with their own individuality. We should strive to throw off the yoke of educational communism, of too much system, and too close confinement to a comparison by percentage whether the standard is absolute perfection, or the work of the best scholar, and return to greater individual latitude. The influence of the Principals, as men of affairs, of social ascendancy, is so important a factor in the character building of the pupils of our upper grades, that we should have their constant attendance in these classes during school hours. And, while they may supervise the schools in their respective buildings, they should not act in the capacity of sub-superintendents, with jurisdiction over their so-called districts.

In the grammar grades the course of study has been so modified as to admit sewing and a more extended course of drawing. This does not mean that the course is crowded to excess, or curtailed in the essentials, to admit fancy or technical branches; but the plan is, as will be seen in the Superintendent's Report, to improve and vary the work.

The evening schools have been a success wherever the demand

of a sufficient number has warranted their maintenance by the committee. The school for elementary English branches in the Luther V. Bell Building and the drawing school in the High School Building should be provided every season. We are in hopes to have some suitable place for the drawing classes, where more attention can be given to the mechanical drawing. Before the establishment of school-rooms in the High School Hall, which took our only available room for this use, we had a very successful class in this work. Our experience shows it to be something sought for by a class of young men engaged in mechanical pursuits, whose ambition and desire to learn should be encouraged in every reasonable way. The experience of cities with evening schools goes to prove that drawing and high school are more successful than grammar schools, from the fact that the class of pupils who attend the latter are engaged in such laborious pursuits that they are too tired to do much studying in the evening after a day's work.

The High School, by the last catalogue, has a membership of four hundred and twenty-two, with one hundred and thirteen in the college course. The school is overcrowded and has outgrown its limits, and the problem of its future is now before the Board. Its success as a preparatory school for college has made the Somerville High School justly famous, and we are proud of its fame. But, as so few of the scholars aspire to college, even of those who select the college course of study, this being selected by many with the idea that it affords the highest discipline and best use of the time, it is to many of the Board of doubtful expediency to enlarge the school on its present basis.

Our population, from its composition, will always demand a large High School — that is, there will always be a large number of scholars whose school life will not end with the grammar school. Many citizens think their boys are not quite ready for business life at the end of the grammar school, and, having no employment for them at home, send them to the High School to spend an interim of time. Such do not want the college course, but select the English course. This course, as now conducted, does not awaken such interest and enthusiasm as gives the parents an idea that the time is well spent, and for this reason the efficiency of the school is criticized. The remedy for this, in the opinion of

many of the Board, is a division of the High School and the establishment of an English and a Classical High School, each in a building of its own. The English High School should have, in addition to the present course, a more complete commercial course, and be fitted with a complete outfit to supplement the course of manual training and industrial education. Much more attention should be given to physical training. Gymnastics and military tactics should have a prominent place in the course. We should impress upon the minds of our youth that honor and distinction lie in the path of the mechanic and manufacturer, as well as the merchant or professional man. We have held up the professions so long in public preferment that the ranks of industrial employments are deserted by almost all our American youth of means and opportunity.

Time was, and not long ago, when the boys and girls had the advantage of constant association with their parents in the employments of life. The home, the farm, and the work-shop were one and the same, or so nearly contiguous that the children assisted in the regular duties of life, or could overlook them to their advantage. Manual training and object teaching were thus taught by the parents themselves in ways most effectual, that produced men and women so broad in their general make-up as to make useful members of society and the bone and sinew of the nation. School and its duties were limited to a few weeks in the district school, which were in reality the vacation time of the year. The advantages of the social economy and condition of life peculiar to those times are often ascribed to the district school, as, by association, school and education are terms used in the relation of cause and effect, as though a person's education is entirely the result of his school life. But, as education means the drawing out and rounding to effective availability of all the faculties, a moment's consideration will show that the few weeks in the year spent in the district school could have had but a slight influence in the results of which we are so proud.

Social conditions in our city are different. These intimate relations of parents and children in the work of life no longer exist, and both are losers. Business and home are entirely separate and distinct. Our city is a collection of residences, and the business, except for domestic supplies, is almost entirely car-

ried on in the neighboring city. Our boys and girls are at school or at play, unable to assist or overlook any of the mechanical duties of life where the work is in actual process. This want is what educators feel should be supplied to the youth of to-day by our public schools. There is a growing feeling that the whole forty weeks of the school year should not be spent in mere memoriter exercises, to the exclusion of practice in manual or physical exercise that will train the whole child by the use of all his faculties. We must make the schools so broad in their routine as to supply the child in school with the same general training that farm and village life give at home or out of school.

The foregoing suggestions are mainly in the line of our present work. They do not mean radical reform or any disparagement. Our schools should enlist our best endeavors; and it should be the ambition of all to place our city first in the Commonwealth in the line of school work. And the work must be done with an eye to our resources, and the finances should be carefully managed, that the best results may be accomplished with the means available. We cannot expect all these advantages at once; but, with a clearly defined purpose and determined energy in the right direction, much may be accomplished.

Respectfully submitted,

JAS. F. BEARD,	}	<i>Com. on Annual Report</i>
H. P. HEMENWAY,		
N. W. BINGHAM,		
H. P. MAKECHNIE,		

SUPERINTENDENT'S REPORT.

To the School Committee of the City of Somerville :—

GENTLEMEN,—In compliance with your instructions and in conformity with the rules of the School Committee, I have the honor to submit my first annual report upon the condition of the public schools of this city for the year 1888.

The following is a summary of the statistics, which may be found in detail in the appendix :—

Population of the city, United States census, 1885,	29,992
“ “ “ 1888 (approximately) .	35,000
Number of persons in the city between five and fifteen years of age in May last, as ascertained by the truant officer	5,959
In East Somerville District	1,245
Prospect Hill “	2,319
Winter Hill “	864
Spring Hill “	801
West Somerville “	730
Number between eight and fifteen years of age .	4,206

VALUATION.

Valuation of the city, May 1, 1888	\$28,765,400
Real estate	\$26,488,200
Personal estate	2,277,200
Rate of taxation . . . . .	.014
Estimated value of school property	\$428,554

DWELLINGS.

Number of dwellings in the city, May 1, 1888 .	5,941
Number of dwellings constructed during the year, or in process of construction	256

SCHOOL ACCOMMODATIONS.

No new school-houses have been erected during the year. The Board petitioned the City Council to move the Prospect Hill building to Concord Square, and to erect a twelve-room building on its site. This has not been done, however. The previous year, the needs of the Prospect Hill District were so urgent, that the School Board requested the City Council to build a new school-house south of the Fitchburg Railroad, and the Committee on Public Property selected a lot of land for the purpose, in obedience to the instructions of the Council. As nothing has yet been done to relieve the crowded condition of the schools in this district, and in view of the fact that the subject has been under serious consideration for some years, it seems hardly necessary for me to present any new arguments in favor of new buildings in Ward Two, except to say that the increase of school population, as indicated by the school census, makes the case more urgent than it has been heretofore. Temporary arrangements have been made for the children by the opening of schools in Independent Hall, in the Eberle Building, in the Avon,—a brick block on Somerville Avenue, near Medford Street,—and by putting extra seats in the Prospect Hill School-rooms, and providing assistants in three of the rooms. Instruction under such circumstances is very inconvenient, and the results are necessarily unsatisfactory. The Bell School has been enlarged by the fitting up of a new room in the basement.

Winter Hill District.—In the Forster School, the first grade is so crowded that additional furniture had to be put in and an assistant appointed.

Spring Hill District.—The Franklin, Harvard, Beech Street, and Spring Hill buildings are in very poor condition and inadequate to the needs of the district. Except during the inclement season, or when contagious diseases have prevailed, the rooms have been filled to their utmost capacity. It has become necessary to open two new schools in the basement of the Morse School-house to accommodate new classes.

West Somerville District is still lacking in seating capacity, the overflow classes of the Highland School being accommodated in two stores on Elm Street.

NEW BUILDINGS.

The erection of new school buildings should demand the serious consideration of the City Government during the coming year. The condition of the Prospect-Hill, Brastow, Jackson, Bennett, Webster, Union, Franklin, Haryard, Beech-Street, Spring-Hill, and Cedar-Street buildings is well known to the School Committee and the citizens. The number, location, size, and arrangements of these school-houses make it very difficult to accomplish the best results. It is doubtful in my mind whether the sanitary requirements are complied with; the cost of maintaining them is greater than it should be; they require a great expenditure of time for supervision; and it is difficult, and perhaps almost impossible to exert through them the elevating and upbuilding influence that should emanate from every school centre.

It should be the policy of the School Committee to establish new schools in healthful and convenient localities, where the surroundings would contribute to the moral development of the children, where noise and clatter of travel and business which distract the attention of the children and rack the nerves of the teachers, may be as far removed as possible, and where all classes may conveniently assemble for equal advantages of instruction and training, so that the children of the poor may, by association, feel the influence of the culture and refinement of the more fortunate. The only way to make the whole community better is to bring the lower up to the average of the higher. This is the spirit of the common-school system. This is the underlying principle of all our American institutions. The school and the school-house should be higher, or at least as high, in character as the community in which it is located, if it is to exert the influence and accomplish the results for which it is intended. These school-houses should be larger than our old ones, that greater numbers may be accommodated under one roof. The cost of the schools per pupil will thus be greatly lessened. We will need a less number of principals, janitors, furnaces, text-books, and it will require less time for the superintendent and the music, drawing, and sewing teachers to make their visits of inspection and instruction. It will also be much easier to grade the schools and keep the instruction up to the standard. There

is, of course, an advantage in having small schools for little children near their homes, but our districts are becoming so compact that there are now no great distances for any children to travel. To be more specific, I would locate a school in the Prospect-Hill district that would accommodate the children belonging to the Prospect-Hill, Brastow, Bennett, and Jackson schools and the Somerville-Avenue Kindergarten; another near Concord Square for all that now attend the Webster, Union, Eberle Hall, Independent Hall, and some from the Bell and Prospect Hill; another between Summer Street and Somerville Avenue, to take the pupils of the Beech Street, Franklin, Harvard, and possibly relieve the Morse and Cummings. I would like to have these located on high ground, built of brick, newly furnished, and as complete in every respect as the other new buildings erected during the last few years; but they should be *heated* and *ventilated* by the best system known in the United States.

I take the liberty of directing your attention to the last report of my esteemed predecessor, in which he set forth the necessity of increasing the accommodations in the High School, and of establishing another grammar school centre. He so thoroughly knew the condition and needs of the school districts that his opinion must be more valuable than mine, and better entitled to your consideration. My experience enables me to reinforce his suggestions and wishes, and I sincerely hope that what he has recommended and anticipated so many years may soon be accomplished.

Two plans by which the High School might be relieved have been considered: one, to build a wing on the present building; the other, to erect a new building and organize an English High School. Of these two plans, I do not feel called upon to judge. I have not had time to master the conditions in the High School and prefer to become fully acquainted with the institution before advising any change in its organization. I am, however, well aware that there is not room enough at present for the needs of the school. There should be improved and increased facilities for instruction by laboratory methods. This would necessitate additional room and apparatus. As a temporary expedient, the High School Hall has been divided into two class-rooms; but no additions have been made to the apparatus.

In giving my views on these points, I have only considered what seems to me necessary and have not estimated the cost of the needed changes. It is for the Board to decide whether the finances would bear the expenditures.

TEACHERS.

There have been more than the usual number of changes during the year. The Superintendent and Committees have consumed much valuable time finding suitable candidates to fill vacancies. Twelve teachers have resigned, three of whom have taken other positions considered, by them, more desirable. Three have been granted leave of absence for the year. Two were omitted from the list because of failing health. Twenty new teachers have been elected, and five have had appointments temporarily. In addition to this number, several have been assigned as assistants in large schools.

RESIGNATIONS.

East Somerville District :

Miss Frank P. Hudson, principal of the Edgerly School.

Miss Fannie F. Fuller, teacher in the Edgerly School.

Mrs. Hattie M. Peirce, teacher in the Edgerly School.

Prospect Hill District :

Miss Hattie E. Adams, teacher in the L. V. Bell School.

Miss Alice M. Wight, teacher in the L. V. Bell School.

Miss Lillian M. Walton, teacher in the L. V. Bell School.

Miss Lucy E. Clark, teacher in the Prospect Hill School.

Miss Helen M. Dodge, teacher in the Brastow School.

Winter Hill District :

Mrs. Alice W. Emerson, principal of the Bingham School.

Spring Hill District :

Miss Bertha L. Emerson, teacher in the Beech Street School.

West Somerville District :

Miss Florence N. Robbins, teacher in the Highland School.

Miss Mary E. Emerson, teacher in the Highland School.

The following teachers have been granted leave of absence :

Miss Emma F. Schuh, teacher in the L. V. Bell School.

Miss Eliza L. Schuh, teacher in the L. V. Bell School.

Miss Hallie M. Hood, teacher in the Burns School.

APPOINTMENTS.

East Somerville District :

Mr. Edgar L. Raub, principal of the Edgerly School.

Miss Carrie E. Cunningham, teacher in the Edgerly School.

Miss Gertrude L. Gardner, Edgerly School.

Prospect Hill District :

Miss Abbie A. Hayward, teacher in the Bell School.

Miss Gertrude E. Robbins, teacher in the Bell School.

Miss Rubie M. Stetson, teacher in the Bell School.

Miss Mary A. Bradford, teacher in the Bell School.

Miss Abbie A. Gurney, teacher in the Bell School.

Miss Joanna A. Barry, teacher in the Bell School.

Miss Lillian C. Albee, teacher in the Brastow School.

Miss Ida F. Fillebrown, teacher in the Cummings School.

Miss Florence O. Bean, teacher in the Bennett School.

Miss Nellie F. Sheridan, teacher in the Webster School.

Spring Hill District :

Miss Ella P. McLeod, teacher in the Spring Hill School.

West Somerville District :

Miss Jennie M. Horner, teacher in the Highland School.

Miss Mary Winslow, teacher in the Elm Street School.

Miss Lucretia C. Sanborn, teacher in the Elm Street School.

SPECIAL APPOINTMENTS.

Miss L. A. Herrick, teacher of Drawing.

Mrs. C. M. Coffin, teacher of Sewing.

Miss Mary L. Boyd, teacher of Sewing.

Mrs. J. S. Soper, Kindergartner in Spring Hill District.

Miss Alma L. Greene, Kindergartner in Spring Hill District.

Miss Sarah E. Kilmer, Kindergartner in Spring Hill District.

Miss Alice E. Warner, Kindergartner in Prospect Hill District.

Mr. Raub is a graduate of the Lock Haven State Normal School, in Pennsylvania, and has had valuable experience as a

teacher in two of the best normal schools in his native State, and as principal of a public school in Paterson, N. J.

Miss Herrick is a graduate of the Massachusetts Normal Art School; has taught the drawing in the Salem Normal School during the last five years; and has, at the same time, taught and directed the drawing in the schools of Watertown. In parting with her, Superintendent Dwelley wrote me as follows: "Miss Herrick was paid by Watertown, \$500, and, simultaneously, by the Salem Normal School, \$600; so that the salary of our drawing teacher, measured by the full time standard, was \$1100. Nothing less than \$1200 could have taken her from us, and you are fortunate in having a committee intelligent enough, and an appropriation large enough, to warrant your employment of her at your figures."

Mrs. Coffin was for many years a teacher in our schools, and, with a practical knowledge of needle-work, and a tact in teaching, is well adapted to her new work.

Miss Boyd, with a practical knowledge of sewing, a natural talent for teaching, unbounded enthusiasm as a worker, has proved the wisdom of her appointment. Both have given much study to the systems employed in Boston, Springfield, Philadelphia, and other cities, and together give promise of marked success in their work.

I cannot emphasize too positively the importance of appointing the best talent to our teaching force. The policy held so tenaciously by the Board, and so strongly advocated by my predecessor in his final recommendation, should be maintained. None but those eminently fitted for the service should be considered as candidates. The delay in filling vacancies this year has been occasioned by the strict adherence to this principle, and the various committees have realized the difficulties in finding candidates of the standard here established. In my report to the Board in November, I advised the consideration of some plan by which greater inducements could be offered to our own teachers, and to those whom it may be advisable to secure to fill vacancies. I believe that our present schedule of teachers' salaries should be remodelled. The most difficult positions we have to fill are the vacancies in primary classes. The work of the primary teacher is as taxing and arduous as that of any. It

requires equal tact, as careful preparation for daily work, as thorough professional training, as wide study of methods, which are constantly varying, as much stamina, endurance, and uniform patience to teach the first class as any in the system. It has long been recognized and acknowledged that the teacher of the youngest pupils earns as much salary as any other, and, in many places, the salary is the same, or larger than those of higher grades, when the experience is equal. Very often the first class is the largest: there are more little faces to remember, more little minds to study, more little hands to train and keep busy, more little coats to button up and rubbers to put on, more new names to keep record of, and parents to interview. The attendance is more irregular, and the results are less satisfactory. All these and other considerations should gauge the compensation. In looking for new teachers, I found that many towns and cities either pay salaries equal to ours, or are willing to increase the pay of their best teachers rather than lose them. I would respectfully recommend that the salaries of the primary teachers be increased.

The great awakening in the teaching profession throughout the country, which has been so marked during the last few years, is also experienced by our teachers. I find them alive to the importance of conducting their work on scientific principles, of keeping abreast of the times, and of making a study of education in all its aspects. To ascertain the professional character of our teaching force, I sent a circular to all the schools soon after assuming the duties of the office, which, among other subjects, inquired as follows:

“Where were you educated? (a.) High School, Seminary, or College? (b.) Normal or Training School? (c.) Special School, Summer Institute, etc.?”

“What periodicals do you subscribe for or read? What works on education have you in your library? Or, what works have you read?”

“Would you like to have me recommend educational reading?”

“What do you think of drawing as a factor in education?”

“What do you think of the introduction of sewing or other features of industrial or manual training into the schools?”

The circular was replied to and returned by every teacher in

the city, and revealed, much to my satisfaction, that a large majority had received professional training, owned libraries containing the best works on education, subscribe for and read the current professional literature, and hold sound views upon the most progressive movements and features of existing systems. Among the books composing these teachers' libraries were mentioned Compayre's, Painter's, and Hailman's Histories of Education, Quick's "Educational Reformers," Sully's "Psychology," Payne's "Science and Art of Education," Bain's "Education as a Science," Spencer's "Education," Rosencranz's "Philosophy of Education," Tate's "Philosophy of Education," White's "Elements of Pedagogy," Fitch's, Page's, Parker's, Prince's, Currie's, Johonnot's, Swett's, Calkins', and Sheldon's works, and many others, all standard and valuable books. Beside professional works, there were also many of a general character. I am in favor of general reading in connection with professional reading, and in this we have the endorsement of some of the best authorities. Dr. Harris says that much of the teacher's reading should be such "as will secure general culture and furnish new inspiration in the task of instruction." He emphasizes the fact of the teacher's humanity, and says: "By how much the more they cultivate and broaden it, by so much do they increase the value and efficiency of their teaching powers."

Some of the schools are organizing libraries containing the best authorities on the history, science, and methods of teaching, and some sustain magazine clubs. All this indicates a live interest in professional progress.

With the same ends in view, we have recently organized a city Teacher's Association, which promises to be very helpful in our work. The constitution contains the following statement of objects and principles:

OBJECTS.

The objects of this Association shall be to unite all teachers of Somerville into one organized body of professional workers for the welfare and progress of the public schools, to consider the aspects of education, to study its principles, to improve its methods, and to advance teaching as a profession.

PRINCIPLES.

This Association holds:—

1. That the highest end of education is the formation of character.
2. That this end is to be attained through the complete and harmonious

development of the human being in his three-fold nature,—physical, intellectual, and moral.

3. That intellectual development depends upon the conscious self-activity of the individual in the exercise of all the faculties of perception, thought, and expression.

4. That a system of education should furnish such instruction and training as shall stimulate all the energies of the child in their natural order and at the proper time, by means of appliances, material, and subjects of instruction adapted to the powers of the pupils.

5. That each grade of school should provide for the acquisition of knowledge, the development of thought power, and the use of expression in all its appropriate modes, whether by construction, drawing, or language.

6. That the child is of more importance than the school; that the natural growth of the child in his three-fold character should never be subordinated to the maintenance of an organization or machine.

7. That no system of classification, examinations, or promotions should interfere with individual progress and growth; that no series of text-books, apparatus, or contrivances should hamper instruction, or stand in the way of the discovery and investigation of truth; and that no effort should be made to attain excellence in any subject of instruction for its own sake, to the detriment of the progress of the child in the process of character-building.

8. That to fully comprehend the importance of our calling, and to accomplish the purposes of an education, we, as teachers, should aspire to the highest professional standard attainable, to the mastery of principles, to the emancipation from stereotyped methods.

9. And that we all, being members of one body, and realizing the importance of each and every one to the whole system, hold it to be our duty to give to each other all the sympathy, aid, and coöperation in our power, and, so far as the opportunities may permit, undertake to familiarize ourselves with the aims, the principles, and the methods of the several departments, in so far as such knowledge may contribute to the general welfare and progress, and render our individual work more harmonious and more effective.

OUR SCHOOL SYSTEM.

Our primary schools admit children of five years of age. The course covers the usual work of a primary school, reading, spelling, writing, numbers, etc. The "etc." embraces a good deal of what the teachers call busy work, more or less essential in so far as it satisfies a need felt by every progressive teacher, and more or less effective in proportion to the wisdom and discretion of the teacher, and the system employed in the use of the material. A mere statement that the usual primary course is poorly adapted to the natural development of a little child when he enters school,

might not be accepted unchallenged. I had occasion, a few years ago, by means of circular letters, to collect the opinions of leading educators in all parts of the country upon the ability of children to receive the ordinary primary school instruction, and the conclusions drawn from the replies show that the instruction is inappropriate, not only as intellectual training, but as a means of physical and moral growth of the child.

Children at five years of age come to school in physical health from the enjoyment of freedom in the open air, with that activity which is so essential to the growth of the body, and a knowledge of things which has come to them by the natural exercise of their faculties. It is important that we should put them under conditions favorable to natural growth, and employ methods that will promote the development of all their powers of body and mind along the lines in which their activity has been exercised.

Activity is necessary for the natural growth of the child, and care should be taken that the requirements of the school shall not interfere with, but rather foster, his inclination, and render it a means of proper training. In first bringing the child in contact with what is to be learned, it is necessary to further develop those senses by which he has acquired his present knowledge, and teach him to *see correctly, listen attentively, and handle carefully.*

The steps already taken in modifying the instruction of the first grade, by the introduction of the study of form, is a step in the right direction, because it brings the child in contact with things and material. The introduction of kindergarten work, in some of our districts, as a feature of the primary course, is the establishment of systematic training that meets every want of the child. The next step to be taken is the establishment of the kindergarten as an essential feature of the school system. This would open the door to little ones at least four years of age, at which time they are capable of taking up the work of that department. It seems hardly necessary to present arguments in favor of establishing kindergartens in every primary school in the city, when so many cities on every hand have recognized their importance, and voted appropriations for their maintenance. In most places the school authorities have adopted the kindergarten system only after their necessity has been demonstrated

by private parties and charitable associations. Would it not be better to institute this feature of a complete system in recognition of the pedagogical principles upon which it is based, and on purely educational grounds?

Without going into a detailed explanation of the kindergarten system, I will simply make a brief statement of what educators claim for it. It cannot be gainsaid:

That the kindergarten system is based upon the principles of education.

That the kindergarten system aims mainly at the formation of character, by developing the three-fold nature of the child.

That the exercises are adapted to the abilities of the children.

That they satisfy the child's desire to do, and furnish proper occasions for his natural activity.

That the faculties of the child are developed by the healthy exercise of his powers.

That knowledge is primarily to be acquired through the senses by studying and handling things.

That ideas should grow in the mind, and not be implanted by means of words.

That self-activity, which finds expression in play, can be directed to useful occupations.

That the development of the child's social nature fits him to occupy his proper place in a community.

That it is the most natural course of training for children in their first year or two of school experience, and that it should be established as the foundation of every school system.

All the elementary grades should include work that will develop the two sets of faculties by which a child learns, viz.: faculties of acquisition and faculties of expression. Some portion of the kindergarten material, much of the kindergarten method, and a complete infusion of the kindergarten spirit should characterize the elementary school. Drawing, paper-cutting, modelling, sewing, etc., should occupy a fair proportion of time. It has been found that five hours a day are too much for the intellectual labor of a child; the afternoon of school work is of very small importance in the primary school unless devoted to light occupations. The ordinary studies of the elementary school

may be used to develop power, provided they are used according to the true principles of education.

Modifications of our present work could easily be made to provide greater facilities for the development of power in the child. The methods of teaching should result in making the child able to teach himself. As the course progresses, children should become students, and the effort of the teacher should be directed to teaching how to study, how to make use of knowledge, and how to exercise power. By this means, greater accuracy will be obtained, definite knowledge will crystallize in the mind, and it will be easier to hold pupils to definite results.

What I may say in regard to the various subjects of grammar school work will more definitely convey my meaning.

I need not dwell upon the established work of our schools, which is so well and thoroughly done. The results are such as you might well be proud of. Modifications are being made from time to time, as occasion demands, as new conditions arise, and as new experience and new light enters the school-room.

We have made some slight changes in our course and in the methods of teaching, but very little need be done, and the modifications should be those that develop from natural, healthy growth.

ARITHMETIC.

Too much time is devoted to this subject, and too many cases are studied. In making the new time schedule, some of the time has been given to other studies, and the Principals have been directed to abbreviate the work. During the coming year, I hope to re-arrange the course and submit to the Committee an outline of what, in my judgment, can and ought to be done.

LANGUAGE.

Language and kindred subjects and Music receive the same attention, and are taught by the same methods as heretofore.

GEOGRAPHY.

At the beginning of the year, a slight change was made in the course in Geography. Instead of teaching the first lessons from the elementary text-book, the instruction now partakes of obser-

vation and oral lessons accompanied by reading from elementary geographical readers. The design is to have the children well grounded in the elementary ideas and facts of natural geography. It is important to form perfect concepts, before the imagination can picture any distant facts. A valuable feature of the instruction should be the making and drawing of the elementary facts and the simple maps that represent the countries taught. It is expected thus to lighten the work and give it more *reality*. All the modifications in the grammar work, in this subject, are intended to make the work more real, and consequently more practical. At no period in the history of education, has this branch of instruction received so much of the attention due its importance as at the present time. Valuable books on methods have been issued, and the teachers are coming to realize the true value and place of the study. The change also involves the substitution of the elementary book for the larger one in the sixth grade, and completing the subject in the middle of the last grammar year. It is intended to dwell less upon the technical facts, and to enquire into causes and effects, to make geography a science study, and not so much memory work. It thus becomes a foundation for other elementary sciences, for out of the structure are developed geology and mineralogy, the study of vegetable products and all phases of life, giving us botany, zoology, etc. The physical conditions determine the location of peoples, tribes, and nations, thus affording the foundation for sociology and history. The study of geography is not only valuable for the facts that are taught, but also for the training of the faculties, which will result from proper methods. The habit of study, the bent of the mind, the inquiring intelligence, are the results that ought to be looked for. No text-book can be depended upon to impart the knowledge of matter or method that should be attained. The teacher must be able to do it by guiding the pupil in his researches by her own inspiration and enthusiasm. We expect to accomplish this by giving the teacher latitude and throwing her on her own resources. We should encourage and assist her by all the helps and suggestions that can be furnished.

HISTORY.

Before the summer vacation the Principals and Superintendent met to consider changes in the work in History. A plan was outlined, and each one was to report before the opening of the schools in September. As a result of these deliberations, a course was reported to the Board at the August meeting, which proposed commencing history by *reading* in the sixth year of the course. This reading is to cover two years. In the eighth, a text-book is to be supplied for study, and in the ninth, the subjects are to be worked up from miscellaneous books, histories, biographies, encyclopedias, etc., which shall constitute class libraries. The Board appointed a special committee to consider the proposed changes, and gave power to authorize the new course, if, upon close examination, it should be found feasible. The special committee approved the plan in the main, and at the opening of the schools it was put in operation. The selection of the class libraries was the next consideration. The superintendent made a collection of all the best school histories and historical readers that could be had, and put them into the hands of the principals for examination. After a time, all reported upon the books, and the list, with sample copies, was examined by the special committee, to whom the Board had given power to select the books. Most of the books originally selected were purchased and the others returned. By this method each child has a book different from those used by most of the class. The facts he finds under his topic may differ from those found by others, but they are *his*. The comparison of facts and opinions thus obtained stimulates the spirit of inquiry, and cultivates a true method of investigation and research. The plan is experimental so far as we are concerned, but has been long tried elsewhere, and has been advocated by some of our principals for many years. It is expected that the results will be gratifying to all interested in the schools. It is not possible this year to prove the merits of the system, because much depends upon the beginnings. The ninth classes may not do as well as we expect, because they have not had the benefit of previous years' work, and the results in the sixth and seventh classes may not be entirely satisfactory for want of the books from which the stories are to

be read. We have made a beginning, and hope by another year to see the results of the system. The subjects have been laid out in topics, and all the teachers furnished with hektograph copies. I wish to acknowledge the valuable assistance of the principals in planning this and all the other work we have done of this character.

SUPPLEMENTARY READING.

In my first visits to the schools, I found so many requests for supplementary reading for all grades, and so little system in its use, that I made a careful collection of all the material used in the schools, and other books that were suggested by teachers for special examination and arrangement. Several meetings of the principals were held, and we united upon a plan which was referred to the Text-Book Committee, and, after careful examination by them, reported to the Board at its meeting in June. The books not already in the list were added by unanimous vote.

The material was divided into three classes: I. Elementary science, including natural history, geography, elementary physics, etc. II. History and biography. III. Literature. The following books are included in the list:

SCIENCE DEPARTMENT.

Wright's Nature Readers, Nos. 1 and 2.
 Wood's Natural History Readers, Nos. 1, 2, 3, and 4.
 Hooker's Child's Book of Nature.
 Monteith's Science Reader.
 Reading in Nature's Book.
 Burrough's Birds and Bees.

GEOGRAPHICAL.

Philips' Geographical Readers, Nos. 1 and 2.
 Seven Little Sisters. Each and All.
 Scribner's Geographical Reader.

HISTORICAL.

Goodrich's Child's History.
 Mrs. Monroe's "Our Country."
 Stories of American History.
 Noble Deeds of Our Ancestors.

HISTORICAL, — *continued*.

Gilman's Historical Readers.
Pilgrims and Puritans.
Philips' Historical Readers, Nos. 1 and 4.
Grandfather's Chair.
Scott's Tales of a Grandfather.

LITERATURE.

Æsop's Fables.
Andersen's Fairy Tales.
Robinson Crusoe.
Hawthorne's Wonder Book.
King of the Golden River, *Ruskin*.
Irving's Sketch Book.
Seven American Classics.

The design is to supplement the drill work in reading with choice selections upon these subjects in all the grades for which the matter is suitable. It is not intended that readings in nature or geography shall take the place of instruction upon subjects that can be learned by the child by observation and investigation; but it is hoped to supplement personal examination and to stimulate inquiry. I am not in favor of instruction by text-books when the knowledge can be obtained first hand, and when the proper presentation of the objects of study is essential to the natural development of the child's faculties. The readings in nature should be a guide, a leading to study of nature herself. The same is true of geography. A proper presentation of the elementary knowledge of geography, and a correct use of readings that stimulate the investigation and intensify the application and study, paves the way for the more serious use of a good text-book. In history, the stories and romances are important in awakening an interest, and directing the thought and bent of the child's mind to the grander themes recorded in the world's history, and to the nobler lives that should be the guide and inspiration of coming generations.

It is very important that choice works should be read by children for their literary value, to cultivate a discrimination, choice, and a taste for what is pure and beautiful in our lan-

guage. It is wonderful how soon children become excellent judges of merit, how easily their æsthetic taste is cultivated, and it is equally wonderful and appalling how easily a taste for trashy reading is formed. School is the place for directing the mind to a love for the beautiful, the chaste, and the ideal in life. With this object in view, selections from the classics of our language have been put upon the list of books for supplementary reading.

It was not possible this year, because of the expense, to supply all the schools and grades with books to carry out this plan. Some have been supplied at the urgent request of the principals, and it is hoped that very soon the reading matter for all the schools will be supplied completely to meet all the needs. There are to be had other works recently published, and doubtless there will be, from time to time, other books, such as we shall need to add to our course.

GRADUATION.

The graduating exercises of the Grammar schools which took place in the M. E. Church, Union Square, on Thursday, Jan. 28, were attended by a large and enthusiastic company of friends of the schools. Hon. Charles H. Burns and Hon. George A. Bruce made addresses. The diplomas were awarded by the Superintendent.

The following is the programme :

ORDER OF EXERCISES.

PART I.

1. OVERTURE. "La Flandre." - - - - - *Bouillon.*
2. PRAYER. - - - - - REV. GEORGE SKENE.
3. *SINGING. "The Heavens are Telling." - - - - - *Haydn.*

COMBINED GRAMMAR CLASSES. (With Orchestra.)

4. ADDRESS. - - - - - HON. CHAS. H. BURNS.
5. SINGING. "The Venetian Boatman's Evening Song." - *Hatton.*
SOLO AND CHORUS. (With Orchestra.)

PART II.

6. ADDRESS. - - - - - HON. GEORGE A. BRUCE.
7. SINGING. "So Merrily Over the Ocean Spray." - - *Richards.*
THREE-PART SONG. (With Orchestra.)

*Director, S. HENRY HADLEY, Teacher of Music.

8. PRESENTATION OF DIPLOMAS.

SUPERINTENDENT CLARENCE E. MELENEY.

9. SINGING. "In Mercy Remember." From Mass. In B flat. *Farmer.*
SOLO AND CHORUS. (With Orchestra.)

PRESCOTT SCHOOL.

DISTRICT COMMITTEE.

S. NEWTON CUTLER. H. P. HEMENWAY. H. C. WHITE. MARK F. BURNS.

Principal, G. A. SOUTHWORTH. *Assistant*, ANNA M. BATES.

GRADUATES:

Jeanie L. Allan.	Nellie H. Fobes.
Arthur J. Atwood.	Lottie M. Griffin.
Grace M. Babb.	Martha G. Harding.
May L. Bates.	Louise W. Haskins.
Lottella E. Bean.	Herbert I. Loughton.
Alice B. Boyson.	Josephine R. Lincoln.
Mabel C. Bragdon.	Louise M. Lombard.
Carrie A. Brainard.	Mary E. Mattson.
Mabel S. Brooks.	Frank Moore.
Ella J. Butler.	Frank T. Murphy.
Elizabeth Caryl.	Arthur C. Naugler.
William K. Chapman.	Gertie L. Nickerson.
Charles E. Cole.	James K. Norman.
Edith L. Cole.	Edith F. Poole.
Maud S. Coledrick.	Warren C. Rees.
Harriette Colgate.	Ida M. Remick.
Thomas S. Collins.	Nannie B. Rich.
Annie H. Corson.	Gertrude M. Robinson.
Peter J. Crowley.	Hattie B. Smith.
Lillian M. Daley.	Bertha M. Stockbridge.
Charles H. Davis.	Guy W. Sturdivant.
Florence C. Dodge.	Carrie M. Swan.
Eva M. Durgan.	Sarah J. Walker.
Mabelle G. Dustin.	Nettie A. Wessells.
Frederick T. Dyer.	Amy B. Wheeler.
Ralph H. Edmester.	Edwin T. Whitton.
Grace G. Fletcher.	Benjamin A. Young.

LUTHER V. BELL SCHOOL.

DISTRICT COMMITTEE.

JAMES F. BEARD. ALPHONZO H. CARVILL. CHARLES I. SHEPARD.

Principal, HERBERT L. MORSE. *Assistants*, ABBIE C. HUNT, MARY E. BERRY.

GRADUATES:

Charles A. Atkins.	James W. Kenney.
Sarah I. Baird.	John Kenny.
Gregory P. Baxter.	Herbert L. Kimball.
Louise M. Benet.	Edith M. Leighton.
Almon W. Blake.	H. Wilder Lewis.
Ida F. Blethen.	Edwin E. Lombard.
Fannie L. Blodgett.	Lucy E. Lombard.
Sarah L. Bradley.	Bertha A. McDonald.
Mary E. Brum.	M. Ellen McIntosh.
Charles W. Buskirk.	Minnie C. McLeod.
Rena M. Chase.	Julia May.
William P. Cheney.	Beatrice L. Miller.
Lillian F. Clisby.	George P. Moore.
John R. Copithorne.	James J. O'Connell.
Lillian P. Courtright.	Mary A. O'Connell.
John E. Crowe, Jr.	Thomas F. O'Malley.
Harry L. Cutting.	Richard W. Power.
John P. H. Dame.	Bertha A. Richards.
George E. Dodge.	Agnes Ross.
Percy H. Everett.	Albert F. Smith.
Eugene B. Fuller.	Philip P. Smith.
Ida M. Gibbs.	Charles D. Solomon.
Howard A. Gilson.	Harold Starbird.
Florence J. Harwood.	Waldemar Veazie.
George A. V. Haskell.	Marion West.
Ethel M. Hayes.	Camille M. Whytal.
Lillian Haynes.	Gertrude M. Wiley.
M. Elizabeth Hernas.	George A. Wood.
Charles E. Hollander.	Edgar H. Wood.
Sumner R. Hollander.	Hattie L. Woodberry.
Henry F. Halloran.	John O. Worden.
John A. Keane.	Gertrude H. Wyman.

FORSTER SCHOOL.

DISTRICT COMMITTEE.

QUINCY E. DICKERMAN. WILLIAM P. HILL. NORMAN W. BINGHAM.

Principal, JOHN S. HAYES. *Assistant*, MARY E. NORTHUP.

GRADUATES:

Charles W. Berry.	Mabel L. Dadmun.
Ambrose B. Champney.	Mabel Derby.
George Corbett.	Grace M. Downing.
Arthur W. Dainty.	Carrie T. Folger.
John J. Dorey.	Ida Earl Godfrey.
Fred W. Felch.	Sadie R. Hagan.
Walter L. Fowler.	Laura W. Hawes.
Harry L. Hazen.	Alice Maude Hoyt.
Albert E. Kenneson.	Georgie E. Mahony.
Ernest J. Loring.	Lillie J. Martin.
George P. Richardson.	Annie McCormack.
Allan Bartlett Souther.	Lillian C. McKim.
J. Frank Stackpole.	M. Ethel L. Pratt.
Grace N. Brown.	Hila Helen Small.
Grace Hamilton Cooper.	Anna B. Smith.
Alice M. Cooper.	Minnie Snow.
Kittie C. Coveney.	Susie H. Stone.

MORSE SCHOOL.

DISTRICT COMMITTEE.

MARTIN W. CARR. HORACE P. MAKECHNIE. BENJ. G. BROWN.

Principal, HORATIO D. NEWTON. *Assistant*, MINA J. WENDELL.

GRADUATES:

Blanche S. Bradford.	Sophie F. Magarr.
A. Euphemia Buckley.	Edward E. McCarthy.
Clara Butterworth.	Edward A. McMasters.
Ida P. Clough.	Georgie McMasters.
Charles E. Colby.	Alice E. Morang.
William E. Cotter.	Hattie H. Morehouse.
H. Gertrude Cox.	Minnie Prince Morse.
E. Maude Cushing.	Herbert F. Moulton.
Agnes E. Dervan.	Patrick J. O'Brien.
Francis E. Doyle.	Karl A. Pauly.

Mabel S. Dyer.
Gracie Maud Freeman.
J. Edwin Ganley.
Katie G. Higgins.
Grace P. Jennings.
F. Marshall Jones.
John F. Kennedy.
John E. Lacy.
Ralph A. Landers.
Ethel H. Lincoln.
Harriet D. Lochman.

Grace L. Proctor.
Augustus S. Quick, Jr.
Andrew F. Ryan.
M. Gertrude Stoppell.
Grace A. Tibbetts.
Lewis H. Towle.
Orel Towle, Jr.
Ashur D. Ware.
Henry A. Wipfler.
John W. Wood.

HIGHLAND SCHOOL.

DISTRICT COMMITTEE.

BENJ. G. BROWN. MARTIN W. CARR. HORACE P. MAKECHNIE.

Principal, GEORGE E. NICHOLS. *Assistant*, M. ALICE PAUL.

GRADUATES:

John E. Anderson.
Robert B. Anderson.
Waldo B. Averill.
Alice M. Beckley.
Charles F. Bertram.
William S. Chandler.
Alice M. Cheney.
Florence L. Davis.
Annie R. Eames.
Albert W. Foster.
Cora B. Hovey.
Mamie L. Hoyt.
Edith D. Jones.
Jennie L. Jones.
Fred R. Jouett.
Nora E. Keefe.
Leroi E. Lacount.
Grace H. Leach.
James Edward Lewis.
Millie A. Libby.
Ellen I. Locke.
Emma F. McArthur.
Lizzie F. McNulty.
John A. Merry.
Edward E. Miller.

James W. Nagle.
Mary F. Nagle.
Nannie Needham.
Ransom P. Nichols.
Eva A. Nicholson.
Emily O'Brien.
Josie G. Owen.
Luella Patch.
Florence E. Prior.
Kathleen E. Pillsbury.
Edith W. Sanborn.
Ida M. Sawyer.
Nettie F. Smalley.
Mabel A. Shumway.
Charles W. Smith.
Ellen E. Stebbins.
Mabel G. Studley.
Ida B. Taylor.
Margaret A. Wallace.
Sadie E. Watkins.
Abram L. Whipple, Jr.
Clifford A. White.
Florence G. Wilder.
Harry B. Wilson.
Maggie F. Wilson.

The whole number of graduates was 243, — 22 more than last year: boys, 103; girls, 140.

From the Prescott School, 54: boys, 17; girls, 37.

“ “ L. V. Bell “ 64: “ 35; “ 29.

“ “ Forster “ 34: “ 13; “ 21.

“ “ Morse “ 41: “ 21; “ 20.

“ “ Highland “ 50: “ 17; “ 33.

One hundred and fifty-six of the graduates from the grammar schools entered the high school in September: boys, 58; girls, 98.

From the Prescott School, 30: boys, 11; girls, 19.

“ “ L. V. Bell “ 36: “ 17; “ 19.

“ “ Forster “ 26: “ 9; “ 17.

“ “ Morse “ 31: “ 12; “ 19.

“ “ Highland “ 33: “ 9; “ 24.

THE HIGH SCHOOL.

The high school is so well established, and so thoroughly appreciated by the committee and the citizens, that it would be impossible for me, from the limited opportunity I have had of examining the course, to give any report of its workings that could do it justice. Its reputation as a fitting school for college is well known in New England; and the thoroughness of the instruction is well attested by the institutions to which our graduates go. That some changes may be made to better adapt the instruction and training to all classes of pupils is quite probable; and I hope to see the day, and that a not distant one, when there will be afforded greater opportunities for the development of all the elements of power upon which success in life depends. In treating of the need of greater opportunities, in the high school, for instruction by “laboratory methods,” for which term I am indebted to Dr. J. D. Runkle, of the Institute of Technology, I used an expression which is so comprehensive as to cover about all the features of the recent reforms in education, or, at least, all those methods which call into exercise the pupil’s powers of doing, of expression by means of material forms. Such facilities could be afforded by a system similar to that of the best manual training schools, which might be added

to the present courses, or might be carried on in a separate school.

Our school system should begin with the kindergarten, and end with the manual training school and the high school, and the intervening grades should represent the steps upon which the pupils ascend from the one to the other. In adopting such a system we would not be pioneers in unexplored fields, but would be following the lead of the most progressive cities in our own State and in others.

HIGH SCHOOL COMMENCEMENT.

The thirty-sixth annual commencement of the high school was a notable affair. The exercises took place in the Union Square Methodist Episcopal Church, on Tuesday, June 26th, in the forenoon. Mr. Hadley's orchestra furnished the instrumental music. The singing by the school, was, as usual, of a very high order. The class was addressed by His Honor Mayor Burns, who also awarded the diplomas.

The following is the programme :—

THIRTY-SIXTH ANNUAL EXHIBITION OF THE SOMERVILLE HIGH SCHOOL, TUESDAY, JUNE 26, 1888.

ORDER OF EXERCISES.

SINGING *—CHORUS: "On Life's Journey." *Veazie.*

(With orchestral accompaniment by S. Henry Hadley.)

1. SALUTATORY IN LATIN. *JAMES M. PERKINS.*

2. ESSAY. *Bubbles.* *A. MAUD HOLLANDER.*

3. READING. *The Life Boat.*

NELLIE F. CHAPIN.

SINGING.—THREE-PART SONG: "Rest Thee on this Mossy
Pillow." *Smart.*

4. READING. *Political Aspirations.* *Marietta Holley.*

MARY A. PYNE.

5. *Die Wunderkur.*

GERTRUDE E. LITTLEFIELD,

LENA P. STACY,

JOSIE M. WOODS,

FRED A. REID,

HATTIE E. RICHARDSON,

EDITH M. TOWER,

WILLIAM C. POTTLE,

FRED W. TEELE.

* Singing accompanied by Hadley's Orchestra.

6. READING. The Debating Society.

MAUDE E. STONE.

- SINGING. TRIO: "Waves of the Sea."

Anderton.

(Young ladies of the graduating class.)

7. ESSAY. *Romance and Realism.*

CHARLES E. MUNSON.

8. FROM "CORIOLANUS." (Original version in Greek.)

HARRY F. GOULD,

ROSA A. NICHOLS,

HARRY D. KENNARD,

S. EDITH RUSSELL,

FRANK E. REMICK,

MARY SWEENEY,

CLARENCE W. SIMPSON.

RECESS.

- MUSIC. — OVERTURE: "Poet and Peasant."

Suppé.

- SINGING. — SOLO AND CHORUS: "Spirit Immortal."

Verdi.

W. C. POTTLE,

C. W. SIMPSON,

FLORENCE BARNES.

9. La société de bienfaisance.

LUCY F. DURELL,

LILLIAN M. HILLS,

MAY L. SPAULDING,

EDITH E. TOWNE,

WILLIAM A. TUCKER,

WALTER T. LITTLEFIELD,

CARA F. MULLIN,

BERTHA M. WOODBERRY.

10. READING. The Doom of Claudius.

Maurice Thompson.

MAY E. FLITNER.

11. POEM.

FLORENCE M. HAMLIN.

- SINGING. — SEMI-CHORUS: "Spring." (Female voices.)

Hadley.

(Composed and scored for orchestra by Henry K. Hadley.)

12. PROPHECIES.

ARTHUR C. DUNMORE.

13. VALEDICTORY.

ELLA A. TITUS.

14. PRESENTATION OF DIPLOMAS. By His Honor MAYOR BURNS.

15. PARTING HYMN.

WORDS BY CHARLES E. MUNSON.

MUSIC BY ALICE G. BAILEY.

MEMBERS OF THE GRADUATING CLASS.

Florence Barnes.

Ella Augusta Titus.

Nellie Florence Chapin.

Edith Mabelle Tower.

Mabel Grace Dodge.

Elizabeth Sears Towle.

Lucy Florence Durell.

Edith Elvene Towne.

Mabel Alma Field.

Helen French Wood.

May Elizabeth Flitner.

Bertha May Woodberry.

Florence May Hamlin.

Josie May Woods.

Lillian May Hills.

Gertrude Elizabeth Littlefield.

George Herbert Atkins.

Cara Foster Mullin.

Andrew Sanborn Carr.

May Finette Pillsbury.

Arthur Chester Dunmore.

Sarah Elizabeth Pratt.

Warren Herbert Fiske.

Mary Alice Pyne.
Hattie Edith Richardson.
Jane Evelyn Scranton.
May Louise Spaulding.
Lena Park Stacy.
Maude Eaton Stone.
Minnie Sherman Thayer.
Lydia Mabel Thurston.

Harley Edgar Hall.
Horace Crosby Hartshorn.
Walter Trowbridge Littlefield.
Fred Luther Morrill.
William Courtney Pottle.
Fred Alexander Reid.
Fred Warren Teele.
William Attwood Tucker.

COURSE PREPARATORY TO COLLEGE.

Harry Fuller Gould.
Edward Newton Huntress.
Louis Curtis Jaques.
Harry Delano Kennard.
Charles Edward Munson.
James Martin Perkins.
Frank Edwin Remick.
Joseph Little Rubel.
Clarence Wadleigh Simpson.
Joseph Harvey White, Jr.

Bertha Adams Conant.
Edith Duchemin Cooper.
Alice Maud Hollander.
Alice Mabel Jones.
Rosa Aurelia Nichols.
Sarah Edith Russell.
Mabel Powers Sears.
Mary Sweeney.
George Stephens.
Lida Jane Wilde.

MANUAL TRAINING.

That element in education which has special reference to the expressive faculties of the human being has been brought into prominence by the introduction of what is commonly called Manual Training. The name, unfortunately, does not convey the full meaning, or, rather, does not imply the educational value of the training. The term may be applied to any exercise in which thought is expressed by means of the hand. This includes making, drawing, and writing. In these exercises, the hand should be trained to be so skilful that the physical act may be performed almost automatically. The expression should be accurate and rapid, with as little consciousness of the act as possible. The child should become as unconscious of the acts in expression as he is of the action of his organs of speech, or as a natural orator is of his gestures. The little child, in handling blocks, sticks, paper, or clay, becomes skilful and works rapidly, putting his ideas into form. His hands become trained to work without effort of mind, without thought of the act. He learns to draw

by practice upon lines and movement exercises, till the hand "goes itself," so to speak. So in writing: after he learns the form of the letters, after they are impressed upon his mind perfectly, he has to be trained by drill exercises, in which the muscles become accustomed to write without thought. A great deal of such training is necessary; and, finally, the skilled hand can readily obey the mind in giving expression to any thought, even the most marvellous invention.

The material used in expression depends upon the age and powers of the children. Manual training is not confined to the carpenter's bench, as some people would have us believe; neither is it intended to turn the schools into workshops, nor to graduate carpenters, blacksmiths, and machinists from our high school. The demand for manual training is a demand of the child for the opportunity to gratify a natural, inborn desire to do, to create, to express. The argument is based upon the psychological fact that there are powers of expression, as well as powers of acquisition. The question may very pertinently be asked whether any of the faculties or powers of a child should remain unexercised and undeveloped in a system of education; or whether, after expending all the resources of the school, and all the energy of systematic instruction upon the cultivation of the powers of acquisition, the counterpart of man, those expressive and executive powers by which he becomes of use to the world, by which he utilizes the accumulations of knowledge, is to be left to chance, or is to remain dormant till it is too late to convert them into energy.

In the primary schools, the course of form-study and drawing, which is a continuation of kindergarten occupations, include much of the manual training exercises required. The ordinary studies of the grammar school also furnish opportunities for this training. Geography, which is based upon form, to a certain extent, brings the child into close relation with nature in all its various forms, and must be studied first-hand, and be expressed in material, drawing, and language. This is also true of all the elementary sciences related to geography, and growing out of it,—botany, geology, zoology, physics, history, etc. In arithmetic, the elements must be learned by tangible objects, and computations, measurements, and practical problems must be worked out by the

use of material and drawings. This is the only sure way of laying a foundation for higher mathematics, which is to come later in the High School.

On May 28th, the special committee which was sent to Philadelphia to inspect the Industrial Exhibition of the work of the public schools of that city, submitted a report which was received and ordered published in the annual report. It was as follows:

TO THE SCHOOL COMMITTEE OF SOMERVILLE, GENTLEMEN: Your committee appointed to visit the Industrial Exhibition of the Public Schools of Philadelphia, respectfully report as follows: That they attended the exhibition in Horticultural Hall, Philadelphia, and while in New York City, visited the College of the Industrial Education Association, and the Hebrew Technical Institute. They had the pleasure and the privilege of conversing with the superintendents and instructors in these several institutions, and thus gained much valuable information in regard to the subject of education.

On reaching Horticultural Hall, Philadelphia, your committee was met by Superintendent MacAlister, several of the assistant superintendents, and the chairman of the Exhibition committee. The exhibition included (1.) A display of all work done in the public schools. (2.) Classes of the various departments at work. (3.) Samples of all books, material, and furniture supplied to the schools. (4.) Schoolrooms representing the past and the present.

1. The display of pupils' work included: *a. Kindergarten Department*—Arrangement of gifts, display of clay modelling, card modelling, paper folding and cutting, pea work, sewing, drawing, etc. *b. Primary Grades*—Drawing, modelling, penmanship, maps of paper, cloth, putty, clay, plaster, etc., compositions, sewing, and other specimens of school work. *c. Industrial Art School*—Drawings, clay tablets, tiles, bas reliefs, and wood carving. (This represents an optional course open to grammar school pupils.) *d. Manual Training School*—Specimens of freehand, mechanical, architectural, decorative, and map drawing, models in clay, wood work, including carpentry, joinery, turning, pattern making, modelling, and carving; metal work—vise work, forge work, tempering, moulding, brazing, mechanical

construction, and electrical apparatus. *e. The Girls' High School* exhibited drawing and needle work of all kinds.

All sections of the city were represented in this collection, which was displayed systematically.

2. In the centre of the hall was an elevated platform upon which there were classes of children with their teachers, one in sewing (girls of the grammar grades), one kindergarten, and a cooking room with all the equipments, and young ladies from the girls' high school, making dishes fit to set before a king. Your committee had the opportunity of sampling the food, and can vouch for its quality. It is almost needless to say that the teacher of this department was a graduate of the Boston School.

The Industrial Art School occupied a large stage at the rear end of the hall where students were engaged in drawing, modelling, and carving.

The Manual Training School occupied a large room in the front of the building. Beside the display of work already spoken of, there was the full equipment of the school on a limited scale. Boys were at work at carpentry, wood turning, carving, moulding, forging, tinsmithing, chipping, and filing,— while others were drawing, and another section had a complete system of electrical apparatus in operation.

3. Philadelphia supplies the schools with everything needed, and the display of this material was astonishing.

4. An old-time school was restored, with furniture in use thirty years ago, a bundle of birch rods being the only appliances for instruction. On the other hand, a modern school room represented the equipment of a school of to-day, which looked very much like our own schools, with possibly some more conveniences and improvements, of which your committee made note.

In consulting with Superintendent MacAlister and others, much information was gathered, of which the following may be mentioned :

Children are received into the kindergarten at three-and-a-half or four years of age. The complete kindergarten system is employed. The kindergarten spirit animates the higher grades, and many of the occupations are carried into the primary classes. All the exercises of the schools are designed to occupy the

children in a natural and healthy way, so as to cultivate all their activities. Care is taken to give the children continued occupation, that they may learn to use all their senses in receiving knowledge and giving expression. The danger of an overstrain of the intellectual powers is thus avoided.

The experience of recent years has convinced the teachers, the school board, and the citizens of Philadelphia that manual training from the kindergarten, which is the foundation, to the Manual Training School, can be engrafted into the schools, and is an essential feature of a complete educational system. It is necessary as a means of developing expressive powers, the representative faculty of the child, and in giving him executive ability.

The teachers have demonstrated that this principle can be applied in many of the ordinary branches of school work, notably *form-study, number, drawing, geography, elementary science*, etc. All the girls are taught sewing from the fourth year of school, and soon learn to make and mend garments for themselves and their brothers and sisters.

The following information in regard to the Manual Training School will be interesting. The course covers three years, which is about equally divided between mental and manual exercises, one hour a day being given to drawing, two to shop work, and three to study. The course follows these lines. 1. Language. 2. Pure Mathematics. 3. Applied Mathematics and Science. 4. Drawing. 5. Tool Instruction. The object of the school is to educate all the faculties. Pupils do not enter for the purpose of becoming mechanics. It is not a trade school. Boys who graduate from the grammar schools may enter the Manual Training School, or the High School, at their own option. Strange to say, the sons of well-to-do people, professional men, and those who appreciate the value of an education, attend the former, while the sons of people who have had to struggle and toil all their lives enter the latter. The statistics show that the attendance at the Manual Training School is better, and the boys stay longer than in the High School. The former is increasing in numbers every year. Graduates of the Manual Training School obtain situations at once, or go to higher professional or technical schools. Every boy knows what he is best fitted for,

and finds something suited to his tastes. The course provides for the development of every talent, and each boy finds some feature of the work that meets his every want. Consequently the principal is able to tell just what line each boy should follow and will best succeed in.

Hebrew Technical Institute.—This institution is situated on Stuyvesant place, in New York City, and is supported by subscription. Boys from ten to twelve years of age are received without examination. Some come from primary schools. The course of study embraces the English branches, drawing, and construction, including clay modelling, wood carving, turning, pattern making, carpentry, and metal work. The course is similar to the Philadelphia Manual Training School, but differs in grade according to the needs and ability of the boys. The school is for a certain class of boys, and provides just the training they need and are capable of. Three hours are devoted to study and three to drawing and shop work. One hour is given for the noon recess, when every boy is given a good substantial dinner, the serving of which affords opportunity for instruction and culture.

Your committee saw boys engaged in all kinds of work and in recitation, in which it was evident that the lads had clear conceptions and were able to express themselves accurately. We found a room full of boys, staying, voluntarily, after school, till six o'clock, to learn carving. The principal says he has to drive them away, and many want to come on holidays.

The school has demonstrated that the Hebrew child, of a race supposed to be destitute of all mechanical or manual ability, is capable of the highest possible development in this direction, and may go out to take positions of responsibility in industrial and scientific occupations. We saw specimens of the most delicate workmanship, that would have done justice to older hands and maturer intellects. If such results are attainable by boys of these antecedents, what may not be expected of the sons of the most ingenious and skilful people on the face of the earth?

The Industrial Education Association. The limits of this report will not enable your committee to do justice to this impor-

tant Institution, which is recognized as the head-quarters of Industrial Education.

The association occupies the old Union Theological Building, No. 9 University Place, New York City. It was established to collect and spread information, to cultivate public sentiment, and help to establish Industrial Education. It has a museum, where are displayed specimens of work from the leading manual training schools of the country, representations of the gifts and occupations of the kindergarten, drawing, and construction work from primary and grammar schools in many cities, and collections of specimens. The association has established a college for the training of teachers, with a faculty of distinguished educators, at whose head is Dr. Nicholas Murray Butler, the President of the association, who is at the same time one of the professors in Columbia College.

In connection with this college are departments established as model schools, representing all grades. There are the kindergarten, the primary classes, grammar classes, sewing, freehand drawing and modelling, domestic economy and cooking, mechanical drawing, carpentry and wood-work, chemical and philosophical laboratories, etc. The equipment of these departments is perfect; all the best and newest appliances are in use. A beautiful hall for chapel exercises and public lectures occupies a part of the first floor. Here are given each year to teachers courses of free lectures upon educational subjects.

In this report your committee do not present these institutions as the first or only ones of the kind. We simply report upon what we saw and learned, with conclusions to be drawn from it. We must not overlook the fact that all and perhaps more of this kind of work can be seen in Boston, and much of it emanated from Boston. The School of Technology is the father of manual training in this country. But we feel repaid for the time and expense of the visit to Philadelphia, and saw in one collection what would have taken weeks to have seen in visiting separate schools.

In view of all the work seen and information gathered, your committee are convinced that the establishment of manual training as a feature of the Somerville schools is practical and expedient, being an essential part of a complete educational

system, and they respectfully recommend that the school committee inquire further into the subject, and take into consideration the advisability of inaugurating such features of the system as can be introduced.

MARK F. BURNS, }
M. W. CARR, }
C. E. MELENEY, } *Committee.*

When it is possible for the Board to appropriate the money, I hope to see a beginning made in a systematic course of tool instruction in wood-work, including carving, sawing, and carpentry, to be supplemented at some time by turning and metal-work. Experiments in other places have proved that Grammar School boys of fourteen years and upwards are *capable* of taking such a course. The need of it has almost passed beyond the debating point. The whole subject is so large that I hope the Board may make especial inquiry into it, and decide upon a plan for its introduction.

So much has been written upon this subject that an extended discussion here seems unnecessary. There are some considerations that have occurred to me why it is more necessary to introduce manual training into our schools than in places where the tendency of the youth is towards mechanical pursuits. I believe such a system is just as necessary for a boy who is to take a professional course as for one who is to be a mechanic, and perhaps more so. If such training develops the man, the boy who is to take up his father's trade will some day receive the benefit of it, while the youth who is to study a profession may never have the opportunity. In a city like this, situated as it is under the shadow of three colleges or universities, and within the sound of great commercial enterprises, the pupils of our schools look forward either to a college course and a professional life, or to the inducements offered by the pursuit of commerce. The ambition of the young man goes out in one of these two directions, and his inclination is not the result of experience, not influenced by a knowledge of his fitness for either one or the other; it is a mere notion. The result is that many take a professional course who should enter the marts of trade, while others drift about from one store or office to another, not knowing what to do, and some would better succeed in other industries.

It is impossible for a young man to know what he is fitted for in life unless all his powers have been tested, all his faculties exercised, all the germs of life and character allowed to grow and develop. Our education should so develop every child that it may enable him to see himself as he is, that every latent power may be excited, awakened, and energized into a potency, that he may at once choose his specialty and fit himself for his natural calling.

It should be so broad as to reach all the elements of power and of character. It should not be so narrow that any one could get through and amount to nothing afterwards, or that any one may fall out by the way because he does not feel the benefit of the instruction; nor should it consume the time and energy of the student, and leave other and greater opportunities unutilized. It should be a training suitable for every one who takes it, no matter what his calling may become, as suitable for the coming farmer as the future doctor or clergyman, as necessary for the rising politician as the mechanical engineer, builder, or scientist. Let technical and special training be private.

DRAWING.

The drawing in our schools has been unsatisfactory for some time, and a change of system and method has been desired by my predecessor and many of the principals and teachers. The Board considered the subject at the meeting in May, and voted to employ a director of drawing, and the Superintendent was requested by the committee to recommend a candidate. Inquiries were immediately instituted, information was solicited from all good authorities on the subject, and all available candidates were investigated. The following qualifications were set as the standard: 1st, a teacher possessing a complete art education, if possible a graduate of the Massachusetts Normal Art School; 2d, one who comprehends the value of drawing as an element in public-school work and its relation to education, and who is a student of the principles and methods of teaching; 3d, a teacher of experience in public-school work and in teaching or directing teachers. We were fortunate in finding such a candidate in Miss Herrick, but could not obtain her services before November 1st. At that

time we were ready to begin. In considering the question of the adoption of a system, the committee considered the following statement of principles and outline of a course : —

In consideration of the establishment of a system of drawing on a broad educational basis, I deem it important to lay before you an outline of the course which I believe we ought to pursue, and present some considerations bearing upon the principles upon which it is founded, and the methods by which it can be carried into effect.

I. As to the *course*. In inaugurating a new work, you can appreciate the fact that it would be impossible to apply the perfected course to all the grades of our schools, as much of the work depends upon the foundation, which must first be laid. It would be useless, therefore, to adopt a course at present, because such a scheme must be built up year by year. I do submit to you, however, the outline of the Course of Study in Form and Drawing prepared under the direction of the State Board of Education, and by them authorized for use in the schools of this State, which, I am sorry to say, has not been followed by our teachers, nor, so far as I can learn, adopted by this Board. Accompanying this, I also submit the course prepared by a committee of the National Teachers' Association, which committee was composed of Superintendent MacAlister of Philadelphia, and a number of other distinguished educators, a course accepted and adopted by the National Teachers' Association at their meeting in Madison, Wis., in 1884. I have for your inspection at any time the courses pursued in several cities, which have been recognized as being correct in principle, and practical in every respect.

These courses we propose to follow in our work in Somerville. We intend to commence in the first grade with the little children. As *color* makes an earlier impression than form in the mind of a child, educators place the study of color first in the curriculum. In many places, the subject is presented in connection with drawing because it is naturally associated with it, and is an important feature of industrial education. It is one of the first lessons of the kindergarten, to which we are accustomed to look for first principles. We hope to give it more room in the future.

We shall next put into the hands of the child the models of the first set, that known in the kindergarten as the *second gift*, the

sphere, cube, and cylinder, and the accompanying modifications. These they are to study by the exercise of all the senses through which the mind receives the impressions of form. Subsequently other type forms are to be used and also the forms of nature.

In the process of learning and in developing the faculty of *reproduction* or *representation*, these type forms and their counterparts in nature are to be made of clay and to be drawn on paper. This, being fundamental, will constitute the work of all the primary grades at present, and, to some extent, of the grammar classes as well, the time spent upon form-study depending upon the ability of the children to master it, and their fitness to proceed to advanced work.

It is, therefore, necessary to supply each building with a box of models, from ten to twenty pounds of artists' clay, lead pencils, cheap manila drawing-paper, and manuals to guide the teacher in the use of the models.

The kindergarten system furnishes us the principles of the study of Form and Drawing. All geometrical *solids* are taught from the type forms; the *plane* figures from the faces of the solids tablets, and paper; and the *lines* from the edges of the solids and sticks, strings, or rings.

These forms are studied in the kindergarten first as "Forms of Knowledge." The form and the ideas obtained by the child from these objects are expressed through the *occupations* of the kindergarten, clay modelling, paper folding, paper cutting, sewing, and drawing. This underlies and is a preparation for the study and expression by drawing of the facts of form, which leads to Construction.

The study of these forms in nature, by elementary zoology and botany, and the modelling, making, and drawing of the objects is based on the kindergarten gifts and occupations treated as "Forms of Life" (animal and vegetable). The drawing in this connection concerns the "appearance of form," which, however, includes also the drawing of type forms as to their appearance. The representation of "Forms of Life" includes curved and straight line figures. Almost everything in nature is graced by curved lines. The kindergarten, however, chooses to include whatever the child is familiar with. This feature of the drawing, therefore, deals with curved and straight line drawing.

The symmetrical arrangements of the material in the kindergarten, whether solids, planes, or lines, curved or straight, are there called "Forms of Beauty or Symmetry" and is the basis of decorative design.

This shows how important the kindergarten system is as a preparation for Drawing. The courses adopted by the National Teachers' Association, and our leading cities, make due allowance for these three phases of primary drawing, which lead directly to the practical application of drawing in the higher classes in the three subjects, Construction, Representation, and Decoration. We hope to do the same.

As all the knowledge imparted in the kindergarten may be classed under some division of Form, except, of course, those qualities or attributes of objects which are incidental, so all elementary knowledge depends upon *form* as its first and most important characteristic. This is true of natural history, botany, geography, and every elementary science. Children acquire these elements through the senses. Form is primarily perceived by *touch*, secondarily by *sight*. How important it is, therefore, that children have typical forms in their hands, and be brought into contact with the real things so abundant in nature. Following out the lines of the kindergarten, we find that Form underlies science, art, and the industries. We perceive by the senses of touch, sight, hearing, etc., and we express thought and knowledge by the hand, in *making, drawing, and written language*, and by the tongue in *oral language*. Clay has been found to be the most convenient and simplest means of expression in *form*. It is capable of practical use in intermediate as well as elementary grades in the High School, and in the artist's studio.

Drawing is related to form, as a means of expression by *delineation*. From the outset, children should be taught to make pictures of what they see, to draw what they know, and, later, what they can imagine. The drawing should represent what is in the mind, whether a form, a fruit, or a continent. The exercise of drawing should tend to perfect the concept and develop the faculty of expression. The drawing, when done, should convey to the mind of the teacher the knowledge or thought of the little artist, or it should be a pattern by which something can be made. Thus it may be a picture of the object, as it looks, or it may be a draw-

ing of the actual facts of the object, by measurements, if you please. In addition to the former, the object-drawing, it may include also the embellishment, or the adornment, of the object, leading to the æsthetic in art.

All the public-school drawing which is in accordance with the above principles, is the outgrowth of the system established in the Massachusetts Normal Art School, under the direction of Walter Smith, and other directors of drawing, employed by the State Board of Education. The present Prang system conforms to these principles, and has matured from the developments of scientific teaching in all grades and kinds of schools. It is the embodiment of the ripe experience of skilful and thoughtful teachers in various parts of the country, and it represents the most recent and the best results of superior teaching in this country. It is founded upon the fundamental principles of education, grows up naturally from the kindergarten, and furnishes all the steps in Drawing of a manual training course. The Prang system is used in many cities where good results can be shown, and, in adopting it, the Board has been guided by the experience of the best educational centres in the country.

SEWING.

At the first regular meeting of the present Board, it was voted to ask for an appropriation for two sewing teachers, and the necessary material for commencing the work in the grammar schools. During the Spring term, the members of the Committee and the Superintendent spent considerable time in visiting schools, collecting information on the subject of sewing, and looking up teachers. In September, two teachers were appointed, and the work was inaugurated in the fourth, fifth, sixth, and seventh, and since extended to the eighth grades. While the girls are sewing, the boys of the same class are engaged in other exercises. The course adopted is to teach the various stitches in order, using practice cloth, and to train the girls in the proper handling of material and implements. No time is spent in making garments. The results are most satisfactory.

EXAMINATIONS AND PROMOTIONS.

This subject is of the highest importance, and is one which is occupying the careful attention of educators in all parts of our country, and of eminent men in other lands.

The special committee to which the question relating to Examinations and Promotions was referred, have had meetings on the subject, and the Superintendent and principals have also discussed the methods employed in our schools.

It would be out of place for me to formulate any propositions in advance of the conclusions which may be reached by the committee; but I may presume to express my convictions to the effect that some modifications of existing rules should be made. I regard oral and written examinations as very important. The only precautions to be taken are in the amount and the manner of conducting them and the objects for which they are carried on. Examinations by the Superintendent should be for the purpose of calling the teacher's attention to the important topics of the course, and suggesting methods of conducting the work. They should ascertain the degree and kind of development resulting from the instruction, and should tend to unify the systems of teaching. Such examinations may be given at any time, but should not enter as an element in determining the promotion of pupils.

Oral and written tests may be made by the principals and teachers, from time to time, to ascertain the efficacy of the instruction and to exercise the pupils in the expression of knowledge. Briefly stated, promotions should be made from the record of the pupil's work, during the year, or term, determined by the success of his efforts, the diligence, application, and perseverance manifested in study, in recitation, and in all the exercises of the school.

TRUANCY.

The report of the Truant Officer will be contained among the statistics. I have not had occasion to enquire particularly into this department of the school work, and hope the truancy may be so insignificant as not to require my attention.

EVENING SCHOOLS.

The Prescott, L. V. Bell, and Highland School-houses were opened for registry of evening scholars the last week in September, but there were not registered pupils enough to warrant the opening of the Prescott and Highland. The Bell school has been conducted with marked success, keeping up the attendance creditably. The session commenced Oct. 1, and closed last week. The usual course has been followed with the addition of readings in elementary science, which has occasioned some practical thinking, and readings in history, which will direct the young people to an interesting and profitable field for future study.

The evening drawing schools which opened in October have not yet finished the course. The Mechanical Drawing class has occupied a part of the hall of the high school, and has been very largely attended by an interested class of young men, — some beginners and others advanced students. The success of the undertaking is gratifying.

The free-hand classes are also very large. The advanced work is in light and shade, and the elementary class are now at work on object drawing. This is too early for a report on this important department of our schools.

The names of teachers, statistics, etc., will be found in the appendix.

CONCLUSION.

The present week terminates the first six months of my connection with the public schools of this city. I experience some little difficulty in formulating a report of their condition and the work being accomplished, much of which you know as well as I. In looking upon my work here, I am sensibly conscious of failings in many particulars, and suffer keen disappointment in not becoming as thoroughly conversant with all the schools as I hoped to do by this time. This I expect to make up during the remaining months of the school year. In conducting the work of the secretary, I have encountered difficulties that can easily be remedied by a few changes in methods and the establishment of a system which, partaking more of machinery, is yet neces-

sary in managing business of such a miscellaneous character as is carried on in this office. In the responsible and continuous duty of furnishing supplies, I owe great obligations to the Committee on Supplies, who have unhesitatingly advised and assisted in this laborious task. During the coming year, I shall hope to inaugurate some changes, with their help, that shall facilitate matters. I am also greatly indebted to the Committee on Drawing for their patience and consideration of the business that has been transacted, for their cordial indorsement of my policy, and their fidelity in carrying out the recommendations establishing the system now used, and securing the services of an experienced and trained director. Allow me also to express my appreciation of the courtesy and support of the committees on text-books, industrial education, and the special committee on courses of study, in establishing new features of work in our schools. To the other committees, and to the Board, I express my sincere thanks for their forbearance, for their advice, co-operation, and encouragement. I hope to receive suggestions at any time that will aid me in carrying out the orders of the Board, executing the rules and regulations, or making such changes in the work of the schools as will enable them to accomplish the highest possibilities attainable.

Respectfully submitted,

C. E. MELENEY,
Superintendent of Public Schools.

SOMERVILLE, Dec. 31, 1888.

APPROPRIATIONS AND EXPENDITURES.

	Estimated.	Expended.	Deficit.	Balance.
Salaries of teachers . . .	\$88,000	\$85,700 66	-	\$2,299 34
Salary of superintendent. . }	9,150	2,416 67 }	\$8 80	-
Salaries of truant officers. . }		850 00 }		-
Salaries of janitors . . . }		5,892 13 }		-
Water and gas.	950	953 36	3 36	-
Text-books, stationery, etc.	4,850	4,808 57	-	41 43
Writing books }	950	534 04 }	-	415 96
Drawing books }				
Printing.	300	526 96	226 96	-
Miscellaneous	2,800	1,869 77	-	930 23
	\$107,000	\$103,552 16	239 12	\$3,686 96
Net Balance				3,447 84

Money received for tuition of non-resident pupils \$83 50

TABLE SHOWING THE NUMBER OF SCHOOLS AND TEACHERS IN THE SEVERAL DISTRICTS, THE NUMBER OF PUPILS IN ATTENDANCE IN DECEMBER, THE NUMBER IN THE NINTH CLASS, AND THE AVERAGE NUMBER TO A SCHOOL.

DISTRICTS.	No. of Schools.	No. of Teachers.	No. of Pupils.	No. in Ninth Class.	Average No. to a School.
East Somerville	23	25	1214	61	52.8
Prospect Hill	39	43	1998	94	51.5
Winter Hill	17	19	846	49	49.8
Spring Hill	20	23	851	41	42.5
West Somerville	14	15	636	42	45.4
	113	125	5545	287	49

TABLE SHOWING THE NAME, LOCATION, DATE OF ERECTION, ESTIMATED VALUE, CAPACITY, ETC., OF THE SEVERAL SCHOOL BUILDINGS.

DISTRICTS.	SCHOOLS.	LOCATION.	When built.	No. Feet in Lot.	Estimated Value.	No. of Rooms.	No. of Classes.	No. of Grammar Classes.	No. of Primary Classes.
East Somerville	High	Highland Avenue	1871	-	44,000	10	4	-	-
"	Prescott.	Myrtle Street	1867	21,444	42,000	12	11	7	4
"	Edgerly	Cross Street	1871	26,428	43,100	8	8	5	3
"	Davis	Tufts Street	1884	29,584	18,333	4	4	1	3
Prospect Hill	L. V. Bell	Vinal Avenue	1874	22,262	43,000	13	13	12	1
"	Independent Hall	Union Square	-	-	-	-	1	1	-
"	Prospect Hill	Washington Street	1848	25,313	20,600	6	6	3	3
"	Cummings	School Street	1884	11,300	15,357	4	4	1	3
"	Brastow	Medford Street	1861	10,019	6,250	2	2	1	1
"	Bennett	Joy Street	1868	20,560	8,300	4	4	2	2
"	Jackson	Poplar Street	1861	11,212	8,300	4	4	1	3
"	Som. Ave. Kg.	Som. Ave. (The Irving)	-	-	-	-	1	-	1
"	Webster	Webster Avenue	1868	11,050	8,300	4	3	1	2
"	Union	Prospect Street	1842	9,360	2,600	1	1	-	1
Winter Hill	Forster	Sycamore Street	1866	32,693	39,422	12	12	8	4
"	Bingham	Lowell Street	1886	20,896	15,105	4	4	1	3
"	Cedar Street	Cedar Street	1843	-	800	2	1	-	1
Spring Hill	Morse	Summer Street	1869	29,109	26,000	8	8	6	2
"	Beech Street	Beech Street	1872	6,000	4,750	2	2	-	2
"	Spring Hill	Beech Street	1850	4,991	1,700	1	1	-	1
"	Franklin	Somerville Avenue	1846	33,017	14,300	4	4	2	2
"	Harvard	Beacon Street	1851	9,810	2,600	1	1	-	1
"	*Burns	Cherry Street	1886	16,080	15,250	4	4	2	2
West Somerville	Highland	Highland Avenue	1880	23,260	33,000	8	8	6	2
"	Elm Street	Elm Street	-	-	-	2	2	-	2
"	Lincoln	Broadway, Clarendon Hill	1885	17,662	15,487	4	4	1	3
						124	117	61	52

* Receives pupils from both the Spring Hill and the West Somerville Districts.

TEACHERS.

Number of teachers (including 7 assistants)	139
Male, 9 ; female, 130.	
Number of teachers in high school	10
Male, 3 ; female, 7.	
Number of teachers in the grammar grades	67
Male, 6 ; female, 61 (including 1 assistant).	
Number of teachers in the primary grades (including 6 assistants)	58
Teacher of music	1
Teacher of drawing	1
Teachers of sewing	2
	— 139

SCHOOLS AND TEACHERS.

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala-ries.	When Elected
High . . .	George L. Baxter . .	Harvard College . . .	\$2,400	1867
" . . .	Frank M. Hawes . .	Tufts College . . .	1,800	1879
" . . .	Charles T. Murray .	Dartmouth College . .	1,400	1887
" . . .	Sarah W. Fox . . .	High School, Taunton. Private instruction, in classics and German, at home and abroad.	1,200	1868
" . . .	Sarah F. Litchfield .	Leominster High School, Lawrence Academy, Groton. Private in- struction in Latin, French, and German .	850	1880
" . . .	Fannie W. Kaan . .	Somerville High School and Salem Normal School	850	1882
" . . .	Eudora Morey . . .	Malden High School and Bridgewater Normal School	800	1882
" . . .	Laura E. Giddings .	Wellesley College and Boston University . .	800	1882
" . . .	Bessie R. White . .	Colby University . . .	700	1887
" . . .	Josephine H. Short .	Boston University . .	600	1887
Prescott . .	G. A. Southworth .	Chicago, Ill., and Low- ell, Mass., High School and private study . .	1,900	1873
" . .	Anna M. Bates . . .	Salem High and Normal Schools	700	1874

SCHOOLS AND TEACHERS—*Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected
Prescott . .	Adelaide Reed . . .	Bridgewater Normal School	\$650	1877
" . .	Abbie A. Anderson .	Stoughton High School and Canton Training School	600	1878
" . .	Emma M. Cate . .	High School, Winchester,	600	1882
" . .	Amelia I. Sears . .	Holliston High School and Westfield Normal School	600	1873
" . .	Catherine T. Brown .	Somerville High School,	575	1868
" . .	Clara Taylor . . .	" " "	575	1871
" . .	Sarah E. Pratt . .	Reading High School and Bridgewater Nor- mal School	600	1877
" . .	Elgina M. Plummer .	High School, Boston .	550	1877
" . .	Florence M. Morton .	Somerville High School,	550	1882
" . .	Ada Cowles . . .	" " "	550	1875
" . .	*Louise E. Pratt . .	" " "	350	
Edgerly . .	Edgar L. Raub . .	Lock Haven State Nor- mal School, Pa. . .	1,000	1888
" . .	Amy C. Hudson . .	Somerville High School,	600	1885
" . .	Lilla J. Pike . . .	High School and Acade- my, Salmon Falls, N. H., and So. Berwick, Me.	600	1887
" . .	C. E. Cunningham .	Salem Normal School .	575	1888
" . .	Vacancy.			
" . .	Mary B. Currier . .	Somerville High School,	550	1873
" . .	Lillian Nealley . .	Salem Normal School .	550	1882
" . .	Clara M. Bagley . .	Somerville High School,	550	1873
Davis . .	Lucretia A. Burns .	High School, Milford, N. H., and Framingham Normal School . . .	625	1882
" . .	Florence A. Robinson,	High School, Dover, N.H.	550	1883
" . .	Gertrude A. Earle .	Bridgew'r Nor'l School,	500	1884
" . .	Priscilla A. Meritt .	Salem Normal School .	550	1885
L. V. Bell .	Herbert L. Morse .	Sherborn High School and Bridgewater Nor- mal School	1,700	1885
" . .	Abbie C. Hunt . .	Ipswich Fem. Seminary,	675	1873
" . .	May E. Berry . . .	Somerville High School,	675	1880
" . .	Lillian M. Walton .	Holyoke High School and Westfield Normal School	600	1886
" . .	Sarah S. Waterman .	Bridgew'r Nor'l School,	550	1888
" . .	Nellie A. Knowlton .	Salem Normal School .	600	1887
" . .	†Emma F. Schuh . .	Somerville High School,		1874

* Assistant.

† On leave of absence.

SCHOOLS AND TEACHERS — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected
L. V. Bell, .	Rubie M. Stetson. .	High School and Acad- emy, Hanover, Mass., and Private Normal Training	\$600	1888
" . .	Alice I. Norcross . .	High School	600	1885
" . .	Fannie A. Wilder . .	High Sch'l and Academy	600	1874
" . .	Nellie A. Hamblin . .	Somerville High School and Bridgewater Normal School	600	1882
" . .	Gertrude E. Robbins,	Bridgew'r Nor'l School,	400	1888
" . .	Mary A. Bradford . .	. . . . .	600	1888
" . .	Annie E. Searles . .	Westboro' High School and private training .	575	1887
" . .	*Eliza L. Schuh . .	Somerville High School,		1882
" . .	Abbie A. Gurney . .	Bridgewater Normal "	550	1888
" . .	Abbie A. Hayward . .	Andover High School and Salem Normal School	550	
Prospect Hill,	Helen Tincker . . .	Mt. Holyoke Seminary and Salem Normal School	700	1872
"	Sarah A. Tuttle . . .	Somerville High School,	400	1886
"	Ellen Ledyard . . .	" " "	575	1874
"	Lizzie W. Parkhurst,	Gloucester High and Training Schools . .	550	1885
"	Lilian A. Wellington,	Boston Normal School .	400	
"	Charlotte I. Houghton,	Somerville High School,	550	1875
"	†Eugenia M. Blaikie .	" " "	200	
"	†Clara M. Smith . .	" " "	200	-
"	†Agnes Gordon . . .	Somerville High School, and Boston Normal School	200	
Cummings .	Lydia J. Page . . .	Somerville High School,	625	1869
" . .	Addie M. Brown . .	" " "	450	1886
" . .	Ida F. Fillebrown . .	" " "	400	1888
" . .	Annie Coffin . . .	" " "	500	1884
Brastow . .	Maria Miller . . .	" " "	575	1875
" . .	Lillian C. Albee . .	High School, No. Attle- boro'	550	1888
Bennett . .	Mary B. Smith . . .	Me. Wes. College, Kent's Hill, Me.	625	1885
" . .	Florence O. Bean . .	Framingham Normal School	400	1888
" . .	Annie E. Sheridan . .	Somerville High School and Salem Normal School	400	1886
" . .	Isadore E. Taylor . .	Somerville High School,	550	1883

* On leave of absence.

† Assistants.

SCHOOLS AND TEACHERS — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected
Jackson . .	Annie E. McCarty . .	Somerville High School	\$625	1880
" . .	Fannie L. Gwynn . .	" " "		
		and Salem Normal School	450	1886
" . .	Lena G. Allen . . .	Somerville High School,	500	1884
" . .	Annie E. Crimmings,	" " "	500	1884
Som. Av. Kg.	Alice E. Warner . .	Brooklyn, and Kindergar- ten Training School, Boston	550	1888
"	Sarah E. Kilmer . .	High School, Needham, Mass., and Hancock Kindergarten Train- ing School, Boston . .	400	1888
Webster . .	Carrie E. Cobb . .	High School, Taunton, Mass.	625	1887
" . .	Nellie F. Sheridan . .	Somerville High School,	300	1888
" . .	Annie L. Savage . .	Somerville High School and Salem Normal School	550	1873
Union . .	Annie E. Robinson . .	Somerville High School,	550	1876
Forster . .	John S. Hayes . . .	Phillips Exeter Acad'y, .	1,800	1878
" . .	Mary E. Northup . .	High School, Centre- ville, R. I.	675	1878
" . .	Mary E. Stiles . . .	Bridgton Academy, Me., and Training School, Farmington, Me. . .	600	1883
" . .	Marietta S. Murch . .	Gorham Normal School, Me., and Portland High and Training School	600	1887
" . .	Minna L. Wentworth,	High School, Salmon Falls, N. H.	600	1885
" . .	Frances M. Guptill . .	Training Department of Eliot Academy, Leb- anon, Me.	600	1869
" . .	Lizzie F. Clement . .	Tilton, N. H., Seminary, High School, Northboro, Mass.	575	1884
" . .	Alice A. Batchelor . .	" " " " " " " "	575	1877
" . .	Addie S. Winneck . .	Salem Normal School . .	575	1883
" . .	Martha H. Pennock . .	Somerville High School,	550	
" . .	Leila V. Colby . . .	" " "	550	1879
" . .	Annie S. Gage . . .	" " "	550	1883
" . .	Lizzie G. Perry . . .	High School, Nashua, N. H.	550	1878
" . .	*Laura C. Duddy . .	Somerville High School and Salem Normal School	200	

* Assistant.

SCHOOLS AND TEACHERS — *Continued.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected
Bingham . .	Mary A. Osborne . .	High and Training School, Quincy . . .	\$625	1885
" . .	Alice Simpson . . .	High and Nor'l School, Newburyport . . .	550	1872
" . .	Nora F. Byard . . .	Somerville High School, " " " "	500	1884
" . .	Cora Foster . . .	" " " "	550	1887
Cedar Street,	Alice M. Porter . .	Somerville High School and Salem Normal School	550	1880
Morse . . .	Horatio D. Newton .	Bridgew'r Nor'l School,	1,700	1886
" . . .	Mina J. Wendell . .	High and Training Schools, Woburn . .	675	1882
" . . .	Stella Hall	High School, No. Read- ing, and Salem Nor- mal School	600	1884
" . . .	Pauline S. Downes .	Cooper Union, New York City	600	1872
" . . .	Ella F. Gould . . .	Lowell and Nashua . .	600	1882
" . . .	Anna E. Sawyer . .	Somerville High School,	600	1873
" . . .	Mary A. Haley . . .	Boston " " "	575	1868
" . . .	Augusta M. Houghton,	Somerville " " "	550	1877
" . . .	Anna Pushee	Somerville High School and Bridgewater Nor- mal School	400	1888
" . . .	*Mrs. J. S. Soper . .	Cambridge K'g Tr'g Sch.	500	1888
Beech Street,	Mary E. Bosworth . .	State Nor'l School, N.H.	600	1882
" . .	Nelly W. French . .	Quincy High and Train- ing Schools	550	1886
Spring Hill .	Ella P. McLeod . . .	Boston High School . .	550	1888
" . .	Alma L. Greene . . .	Cambridge K'g Tr'g Sch.	500	
Franklin . .	Hattie A. Hills . . .	Somerville High School,	650	1874
" . .	E. C. Summerhayes .	High School, Nantucket, Mass.	575	1876
" . .	Anna C. Damon . . .	Worcester State Normal School	550	1879
" . .	Caroline S. Plimpton,	Southbridge, Mass., va- rious private schools .	550	1859
Harvard . .	Florence B. Ashley .	Somerville High School,	400	1887
Burns . . .	Laura J. Brooks . . .	Providence	625	1883
" . . .	Minnie S. Turner . .	Somerville High School,	500	1885
" . . .	Hallie M. Hood . . .	" " " "	550	1884
" . . .	Annie L. Brown . . .	Cambridge " " "	500	1885
Highland . .	George E. Nichols . .	Dartmouth College . .	1,800	1877
" . .	M. Alice Paul	Somerville High School,	675	1897
" . .	Harriet B. Sargent .	High School, Barre, Mass., and Worcester Normal School . . .	600	1887

* Assistant.

SCHOOLS AND TEACHERS — *Concluded.*

SCHOOLS.	TEACHERS.	WHERE EDUCATED.	Sala- ries.	When Elected
Highland .	S. Adelaide Blood .	High School, Leominster, Mass., and Salem Normal School . . .	600	1882
" . .	Annie R. Cox . . .	State Nor'l School, N.H.	600	1883
" . .	Jennie C. Frazier . .	Cambridge High School and Boston Nor'l "	525	1887
" . .	Sarah E. Pray . . .	Somerville High School,	575	1878
" . .	Lilias M. Bryden . .	" " " " " " " " " " " "	550	1888
" . .	Jennie M. Horner . .	Somerville High School,	350	1888
Elm Street .	Mary Winslow . . .	Boston " " " " " "	350	
" . .	Lucretia C. Sanborn .	N. H. Normal School and Kindergarten Normal, Boston	550	1888
Lincoln . .	Hattie A. P. Roth .	High School, Hinsdale, and Westfield State Normal School . . .	625	1887
" . .	Pauline A. Osgood .	Lincoln Academy, New Castle, Me., and Gorham Normal School .	450	1887
" . .	Charlotte F. Mott . .	Private school, Waddington, N. Y.	550	1886
" . .	Annie C. Thayer . .	Somerville High School and Boston Nor'l "	450	1885
Music . . .	S. Henry Hadley . .	" " " " " " " " " " " "	1,333	1868
Drawing . .	L. A. Herrick . . .	Mass. Nor'l Art School,	1,200	1888
Sewing . . .	Mrs. C. M. Coffin . .	Nantucket High " "	600	1888
" . .	Mary L. Boyd . . .	" " " " " " " " " " " "	400	1888

PUPILS.

Number of persons in the city between five and fourteen years of age, on the first day of May	5,959
Number between eight and fourteen years of age	4,206

	High School.	Grammar Schools.	Primary Schools.	Total,
Whole number registered during the year	559	3,089	3,614	7,262
Average whole number	379.3	2,684.3	2,424.6	5,488.2
Average attendance	361.8	2,542.4	2,269.8	5,174
Per cent. of attendance	95.3	94.7	93.6	94
Number of cases of tardiness	263	1,023	1,652	2,938
" " " dismissal	626	1,390	628	2,644
" " " punishment	—	445	511	956
Number of pupils in attendance in Jan.	379.	2,754	2,453	5,586
" " " " " " " " " " " " " " " "	411	2,890	2,655	5,956
Average No. pupils to a teacher in Dec.	41.1	43.8	51	46
No. pupils over 15 years of age in Dec.	372	247	2	621

EXHIBIT OF THE PUBLIC SCHOOLS.

SCHOOLS.	Whole No. Registered during the year.	Average whole Number.	Average Attendance.	Percentage of Attendance.	No. Cases of Tardiness.	No. Cases of Dismissal.	No. Cases of Punishment.	No. Pupils in Attendance in January.	No. Pupils in Attendance in December.	Average No. of Pupils to a Teacher.	No. Pupils over 15 yrs. of age in Dec.
High School, - -	559	379.3	361.8	95.3	263	626		379	411	41.1	372
Foster Grammar, -	416	361	343.8	95	35	84	7	372	388	47.5	38
Primary, - - -	269	192.4	181	94.5	39	28	1	185	218	54.5	
Bingham Grammar, -	45	38.5	36.2	94	10	44		41	42	42	
Primary, - - -	217	147	138	92	18	22		181	147	49	
Cedar Street Primary,	42	33	29	86.6	61	14	15	33	42	42	
Prescott Grammar, -	419	351.1	335	95.4	30	90	32	388	355	51	49
Primary, - - -	254	172.4	161	93.6	38	14	14	161	218	55	
Edgerly Grammar, -	234	210.4	199.5	94.8	23	58	16	205	248	50	11
Primary, - - -	264	180	170	94.6	48	24	6	209	160	53	
Davis Grammar, -	57	43.6	41	94	12	18	19	47	49	49	
Primary, - - -	230	145.6	134	92.7	75	48	33	162	172	57.3	
L. V. Bell Grammar, -	602	564	535	94.9	203	333	92	560	634	49	78
Primary, - - -	106	55	51	92.5	12	3		51	62	62	
Prospect Hill Grammar,	191	153	144	94	36	45	18	166	166	55	1
Primary, - - -	270	185	171	91	128	53	8	187	220	73	
Cummings Grammar, -	61	45	43	96	15	14	14	53	43	45	
Primary, - - -	242	165	150	92	54	21	18	188	166	55	
Brastow " - - -	118	85	79	93	71	50	24	88	84	84	
Bennett Grammar, -	50	62	56.2	90.3	82	53	71	45	69	46	1
Primary, - - -	211	138	124	89.9	155	44	121	162	130	52	
Jackson Grammar, -	45	38	36	94.2	100	68	28	40	44	44	1
Primary, - - -	212	131	122	93.1	243	25	95	143	144	48	1
Webster Grammar, -	38	31.2	28.2	90	86	21	41	33	32	32	
Primary, - - -	105	87.3	81	92	84	19	63	80	100	50	
Union Primary, - -	67	53	46	87.6	14	7	2	56	62	62	
Somerville Avenue Kin-											
dergarten, - - -	38	31	25	80	0	0	0		38		
Morse Grammar, - -	315	272.6	260.6	95.8	143	150	30	271	267	44.5	30
Primary, - - -	86	71	65	90	41	11	0	0	76	38	
Beech Street and Spring											
Hill Primaries, - -	186	125	116	92.4	79	21	9	111	105	35	
Franklin Grammar, -	98	77	73	94	64	37	2	82	83	41.5	
Primary, - - -	123	86	81	90	57	45	56	91	94	47	
Harvard Primary, -	76	37	32.8		114	10	6	34	76		
Burns Grammar, - -	118	95.9	90.6	94	46	83	16	96	105	48	
Primary, - - -	134	87.4	81	92	32	72	3	97	80	40	
Highland Grammar, -	316	277	261.8	93.9	78	254	45	282	297	50	36
Primary, - - -	178	96.3	121	93.4	92	65	13	128	141	47	
Elm St. Kindergarten,	33	26.9	25	92.5	57	2		0	33		
Lincoln Grammar, -	84	64	58.5	91.4	45	42	14	73	68	40	2
Primary, - - -	153	94.3	86	92.9	55	26	24	106	87	43.5	1
Total, - - - -	7,262	5,488.2	5,174	94	2,938	2,644	956	5,586	5,956	46	621

TABLE OF PUPILS BY GRADES.

Grades.	Class.	No. of Teachers.	Boys.	Girls.	Total.	Average age.	No. promoted to higher grade in June.
High . .	Fourth year	10	17	49	66	18 y. 4 m.	-
" . .	Third year,		33	49	82	17 y. 3 m.	-
" . .	Second year		44	57	101	16 y. 7 m.	-
" . .	First year		55	107	162	15 y. 6 m.	-
			149	262	411		
Grammar	Ninth . . .	11	139	148	287	14 y. 8 m.	243
"	Eighth . . .	8	160	195	355	14 y. 1 m.	277
"	Seventh . . .	9	221	178	399	13 y. 3 $\frac{1}{2}$ m.	315
"	Sixth . . .	10	280	230	510	12 y. 4 m.	417
"	Fifth . . .	14	348	269	617	11 y. 7 m.	510
"	Fourth . . .	*15	367	355	722	10 y. 7 m.	605
		*67	1,515	1,375	2,890		2,367
Primary .	Third . . .	16	381	307	671	8 y. 7 m.	538
"	Second . . .	16	447	351	781	7 y. 11 m.	705
"	First . . .	26	672	497	1,150	6 y. 5 m.	660
		†58	1,500	1,155	2,655	-	1,903
Total .		135	3,184	2,772	5,956	-	

*Including one assistant.

† Including six assistants.

ADDITIONAL STATISTICS OF THE HIGH SCHOOL.

Whole number of different pupils during the year . . .	559
Largest number at one time	435
Number admitted during the year	180
“ from our Grammar Schools	156
“ from other schools	24
“ graduated	57
“ of graduates who entered college	14
“ “ “ “ Institute of Technology and Scientific schools	7
“ who have left during the year, exclusive of graduates	91
Whole number at the present time	411
Average number to a teacher	41
Number over fifteen years of age	370
“ in course preparatory to college	113

Number pursuing the regular course	232
“ “ “ English course	66
“ in the first class when it entered the school	170
“ “ “ “ at the present time	66
“ “ second class when it entered the school	140
“ “ “ “ at the present time	82
“ “ third class when it entered the school	149
“ “ “ “ at the present time	101
“ “ fourth class when it entered the school	175
“ “ “ “ at the present time	162

EVENING SCHOOLS.

	Whole No. enrolled.	Average whole No.	Average attendance.	Per cent. of attendance.	No. of teachers.	No. of sessions.	Cost of janitor's services.	Cost of instruction.
L. V. Bell School	118	47	33	70	3	50	\$101 00	\$260 00
Drawing School, freehand	85	77	57.7	75	-	18	50.50	360 00
Drawing School, mechanical	55	41.4	37.9	91.5	4	15		

REPORT OF TRUANT OFFICER.

Number of visits to the schools	643
“ absences investigated	584
“ cases of truancy	164
“ different truants	101
“ truants arrested	13
“ sent to the House of Reformation	1

WEEKLY TIME-TABLE OF SEWING TEACHERS.

	MRS. COFFIN.	MISS BOYD.
Monday	L. V. Bell School	Forster School.
Tuesday, A.M.	Independent Hall and Cummings School	Davis and Edgerly Schools.
Tuesday, P.M.	Burns School	Edgerly School.
Wednesday	Morse School	Prescott School.
Thursday, A.M.	Lincoln School	Prospect-Hill School.
Thursday, P.M.	Franklin School	Bennett School.
Friday	Highland School	Bingham School.

PROGRAMME OF VISITS OF MISS HERRICK, DRAWING TEACHER.

	DAYS.	A. M.	P. M.
For the weeks beginning Jan. 14, Feb. 11, March 18, April 15, May 20, Jan. 17. . .	} Monday . . .	Bingham and Cedar Street . . .	Webster and Union.
	} Tuesday . . .	Prospect Hill . . .	Beech Street and Spring Hill.
	} Wednesday . . .	Forster . . .	Supplementary work.
	} Thursday . . .	Edgerly . . .	L. V. Bell.
	} Friday . . .	Morse . . .	Prescott.
For the weeks beginning Jan. 21, Feb. 18, March 25, April 22, May 27, Jan. 24. . .	} Monday . . .	Jackson and Somerville Avenue Kg. . .	Lincoln.
	} Tuesday . . .	Bennett . . .	Franklin.
	} Wednesday . . .	Bell . . .	Supplementary work.
	} Thursday . . .	Highland and Elm Street . . .	Forster (District).
	} Friday . . .	Prescott . . .	Supplementary work.
For the weeks beginning Jan. 28, March 4, April 1, May 6, June 3.	} Monday . . .	Burns . . .	Prospect Hill and Brastow.
	} Tuesday . . .	Davis . . .	Supplementary work.
	} Wednesday . . .	Forster . . .	"
	} Thursday . . .	Edgerly . . .	Bell.
	} Friday . . .	Morse . . .	Prescott.
For the weeks beginning Feb. 4, March 11, April 8, May 13, June 10.	} Monday . . .	Lincoln . . .	Cummings.
	} Tuesday . . .	Franklin . . .	Harvard.
	} Wednesday . . .	Bell . . .	Supplementary work.
	} Thursday . . .	Highland . . .	Forster (District).
	} Friday . . .	Prescott . . .	Eberle Hall and Ind. Hall.

REPORT

OF THE

SOMERVILLE MYSTIC WATER BOARD.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 23, 1889.

Referred to Committee on Printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

IN COMMON COUNCIL, Jan. 23, 1889.

Referred to the Committee on Printing, to be printed in the annual reports, in concurrence.

CHAS. S. ROBERTSON, *Clerk*.

REPORT OF COMMITTEE ON WATER-WORKS.

To His Honor the Mayor and the City Council.

GENTLEMEN, — The appropriation made by the City Council of 1888 for the extension and renewal of the water-works has enabled the Water Board greatly to improve the water system during the year just closed. Nearly 10,000 feet of the old worn-out cement pipe have been replaced with iron pipe since the appropriation was made. This much-needed improvement will greatly lessen the cost of maintenance of the works in future, by reducing the number of breaks, and, at the same time, will lessen the danger from fire, which has been so serious in the past. A good deal yet remains to be done in this direction.

The rapid growth of the city and the consequent demand for new services has kept the water department busy during 1888. During the year, in addition to the 10,000 feet of new pipe laid to replace the cement pipe, there have been 10,757 feet of new water mains laid. Fourteen new hydrants were set, and nineteen new gates. There were 414 new services laid during the year, — nearly forty more than were laid in 1887. During the year there were 79 leaks and bursts. With the new pipe that has been laid, the number of bursts will probably be greatly reduced this year. The whole number of services now in the city is 5,410.

In January and February the heavy frosts, which penetrated the ground to a depth of four and one-half feet, caused a heavy expense for thawing out pipes, — nearly \$3,100. To prevent such expense, thirty-one services were lowered to the proper depth. There has been more or less trouble, for the past ten winters in Bond Street, caused by the freezing of the main and service pipes. It was found that the main was at an average depth of only 22 inches, and that it lay upon a ledge for the whole distance, — 631 feet. The main was lowered four and three-fourths feet through

the ledge, and is now about six feet below the surface. The sur-
vices in Bond Street were found to be so weakened by freezing
and thawing that eleven new ones had to be put in. This work
cost more than \$1,100.

During a heavy thunder storm the lightning struck the pipe
near the railroad track, on the corner of Pearl and Cross Streets,
and destroyed nearly 462 feet of 4-inch pipe. At the same time,
about 390 feet of 4-inch pipe were destroyed in Morrison Street.
The Morrison Street Pipe was found to be in such poor condi-
tion that 1,760 feet were replaced with 6-inch iron pipe.

The need of a high water service in Somerville is generally
acknowledged. For many years there have been complaints of
insufficient water supply, from those living in the highlands of
the city, and lately the growth of the city has been so rapid that
these complaints now demand immediate attention. Residents
in the higher parts of Somerville cannot now, in most cases, get
a water supply on the second floor of their dwellings, and, in
many cases, it is impossible for them to get water even on the
lower floor. To supply their needs, they have been obliged to
use force-pumps, wind-mills, and other expensive means for sup-
plying what ought to be at the command of every resident of
the city. The injustice of this condition of things is more evi-
dent, when it is considered that the residents in the higher parts
of the city are generally wealthy people, who pay large taxes,
and who form the most desirable class of residents in Somerville.
The growth of the city in the best direction has been hampered
seriously by the insufficiency of the water supply. Capitalists
refuse to build on the vacant lands in the higher sections of the
city, because they know that it is impossible for them to get a
water supply, and that, consequently, they will be unable to sell
the buildings which they might erect. If a high water service
were established, the effect would be immediate. The vacant
lands in the most desirable parts of Somerville would be taken
up, expensive dwellings would be erected, people of a desirable
class would be brought to the city, and the increase of taxable
property, both personal and real, would be very great. Indeed,
the increase of income to the city from this source would
more than make up the cost of the whole system that is
needed.

The actual danger that exists, and will continue until the high water service is supplied, is very serious. There are many public buildings on high ground in Somerville which are in danger because of the lack of sufficient water supply, and the number of costly residences that are similarly endangered is very great. One extensive fire might do more damage, and cause more loss, than the whole cost of the introduction of the high water service, and such a fire, under the present conditions, may occur at any time.

The Water Department of Somerville now pays a profit to the city of more than \$47,000 a year, less the expense for interest and maintenance. Experience has shown that the extension of the water service always results in immediate profit to the city, both directly and indirectly, through the increase in the number of dwellings, and the consequent increase in taxable property, both personal and real. The expense of putting in the high water service system would not be great, and the returns would be immediate and sure. On Winter, Central, Spring, and Prospect Hills, there are many thousand dollars' worth of dwelling sites now unoccupied, a great many of which would be taken up immediately, if a sufficient water supply were to be had. The people now living in these localities, and on the other highlands of the city, already pay a large proportion of the city's taxes, and as a matter of common justice they should have at least as good a water service as the other residents of Somerville.

It has been estimated that the cost of the introduction of the service would not exceed \$75,000. The loss from a single fire would more than pay the interest on this amount for a year, and the immediate increase of income due to the introduction of the system, would refund the money to the city within a very few years. At the present time, on Winter and Spring Hills, there are many water consumers who pay only half rates for their water service, on account of the insufficiency of the supply. The increase in rates, which they would be willing to pay if the high water service were established, would be a considerable item. The time has come when the demand for the introduction of the service can no longer be disregarded. Even if it were not to be a profitable investment, the investment, before long, would have to be made. It can be shown, however, that the investment will

be a profitable one, and it should be made now, without unnecessary delay.

Another needed improvement is the extension of the 10-inch main on Highland Avenue, from the Brastow Hose House to Central Street. This main was provided for in the original plan of the works, and is necessary to a free circulation of water throughout the present system. The increase in the number of houses in that part of the city has been so great, that the main must be laid now, without unnecessary delay. Like all other extensions of the water service, it will pay its cost to the city within a very few years, by the increase of income which it will cause.

A detailed statement of the workings of the department for the year is given in the appended report of Superintendent Dennett, which is commended to the consideration of the City Council.

J. O. HAYDEN,
A. C. WINNING,
RICHARD DOWD,
WALTER S. BARNES,
JOHN B. VIALI.

SUPERINTENDENT'S REPORT.

To the Somerville Mystic Water Board.

GENTLEMEN,—The annual report of the Superintendent of the Somerville Mystic Works is respectfully submitted, giving a detailed account of all work performed during the year 1888. The schedules hereto annexed show the sizes and locations of the extensions of main pipe, and of the pipe re-laid; and also the stop-gates, hydrants, and stand-pipes set. The inventory of tools and stock on hand is included.

DISTRIBUTION MAINS.

These were extended 10,757 feet, giving a total in the entire city of 54 miles, 944 feet. There were re-laid 9,831 feet of iron pipe in place of the cement-lined pipe. The work of re-laying was done in the most thorough and substantial manner. There were seventy-nine breaks on mains, in repairing of which 280 feet of pipe were used. Of the various sizes, there were twenty-four bursts on four-inch, thirty-nine on six-inch, thirteen on eight-inch, one on ten-inch pipe.

EXTENSIONS OF MAIN PIPE.

Kingman Court, from Washington Street, and runs to a dead end, 311 feet, 4-inch pipe.

Greenville Street, from dead end, near Boston Street, and connected at Monroe Street, 321 feet, 6-inch pipe.

Chandler Street, from dead end near Chapel Street, and runs toward Broadway, 73 feet, 2-inch pipe.

Bartlett Street, from Vernon Street, runs to a dead end, 106 feet, 6-inch pipe.

Jaques Street, from Wheatland Street, runs towards Temple Street, 472 feet, 6-inch pipe.

Madison Street, from Sycamore Street, runs and is connected at dead end on Madison Street, 466 feet, 6-inch pipe.

Sycamore Street, from Sycamore Street, dead end, and connected at Madison Street, 88 feet, 6-inch pipe.

Chapel Street, from Elm Street, and connected at Chandler Street, 95 feet, 4-inch pipe.

Preston Street, from dead end, and runs and connected at Summer Street, 133 feet, 6-inch pipe.

Elm Street, from dead end, near Chapel Street, and runs to a dead end, North, 392 feet, 6-inch pipe.

Sewell Street, from Temple Street, and runs to a dead end, East, 348 feet, 6-inch pipe.

Carlton Street, from Lake Street, and connected at Somerville Avenue, 288 feet, 6-inch pipe.

Wheatland Street, from Jaques Street, and runs to a dead end at Mystic Avenue, 1,253 feet, 6-inch pipe.

Sidney Street, from Temple Street, and runs to a dead end on Sidney Street, 448 feet, 6-inch pipe.

Jerome Street, from Montrose Street, and runs to a dead end on Jerome Street, 132 feet, 1 $\frac{1}{4}$ -inch pipe.

Delaware Street, from Aldrich Street, and runs to a dead end on Aldrich Street, 342 feet, 6-inch pipe.

Medford Street, near School Street, and runs to a dead end on Medford Street, 54 feet, 6-inch pipe.

Cook Street, from Wyatt Street, and connects at Adrian Street, 306 feet, 6-inch pipe.

Adrian Street, from Cook Street, and connects near Marion Street, 49 feet, 6-inch pipe.

Ware Street, from Curtis Street, and runs to a dead end, 287 feet, 6-inch pipe.

Kensington Street, from Broadway, and runs to a dead end, 326 feet, 6-inch pipe.

Runey Street, from near Cross Street, and both dead ends connected with, 339 $\frac{1}{2}$ feet, 6-inch pipe.

Farragut Avenue, from Holland Street, and runs to a dead end, 570 feet, 6-inch pipe.

Richdale Avenue, from Sycamore Street, and runs to a dead end, 63 feet, 6-inch pipe.

Jenny Lind Avenue, from Medford Street, and runs to a dead end, 204 feet, 4-inch pipe.

Brastow Avenue, from Porter Street, and connects with dead end, 165 feet, 4-inch pipe.

St. James Avenue, from Elm Street, and connects with dead end, 142 feet, 6-inch pipe.

Franklin Avenue, from Franklin Street, and connects with dead end, 114 feet, 4-inch pipe.

Mason Avenue, from Orchard Street, and runs to a dead end, 205 feet, 2-inch pipe.

Wilson Avenue, from Broadway, runs to a dead end, 297 feet, 2-inch pipe.

EXTENSIONS.

Porter Street, runs from Summer Street to a dead end, 393 feet, 6-inch pipe.

Mountain Avenue, runs from Porter Street to a dead end, $284\frac{1}{2}$ feet, 2-inch pipe.

Fountain Avenue, runs from near Cross Street to a dead end, 165 feet, 4-inch pipe.

Tenny Court, pipe is used as a blow-off, and is at the dead end, 8 feet, 4-inch pipe.

Wellington Avenue, runs from Walnut Street, and is at a dead end, 104 feet, 6-inch pipe.

Washington Street, runs from Somerville Avenue, and connects with Hawkins Street, 887 feet, 8-inch pipe.

Holland Street, runs from 10-inch main to connect with a new hydrant, located in Davis Square, $15\frac{3}{4}$ feet, 6-inch pipe.

Hawthorn Street, runs from dead end and connects with West Street, 46 feet, 1-inch pipe.

Landers Street, runs from School Street, to a dead end, 200 feet, 2-inch pipe.

Franklin Street, runs from the main to supply hydrant, 9 feet, 6-inch pipe.

West Street, runs from Hawthorn Street to a dead end, near Highland Avenue, 255 feet, $1\frac{1}{4}$ -inch pipe.

Total number of feet extended, $10,757\frac{1}{4}$.

STREETS RE-LAID.

Pearl Street, running from Cross toward Walnut, a distance of $462\frac{1}{2}$ feet, 6-inch pipe in place of 4-inch.

Merriam Street, running from Somerville Avenue toward Charlestown, a distance of 567 feet, 6-inch pipe in place of 4-inch.

Hawkins Street, running from Washington to Somerville Avenue, a distance of 417 feet, 6-inch pipe in place of 3-inch.

Somerville Avenue, running from Medford to junction of Washington, a distance of 1,563 feet, 8-inch pipe in place of 6-inch.

Franklin Street, running from Washington to Oliver, a distance of 799 feet, 8-inch pipe in place of 6-inch.

Oliver Street, running from Franklin, a distance of twenty feet.

Morrison Street, running from Willow Avenue to Elm, a distance of 1,765 feet, 6-inch pipe in place of 4-inch.

Everett Street, from Prospect to Webster Avenue, a distance of 419 feet, 6-inch pipe in place of 4-inch.

Emerson Street, running from Everett to Newton, a distance of 205 feet, 6-inch pipe in place of 4-inch.

24 feet of this was 6-inch, and 181 feet of 4-inch.

Newton Street, from Prospect to Everett, a distance of 92 feet, 6-inch pipe in place of 4-inch.

Prospect Street, running from Somerville Avenue to near Newton, a distance of 167 feet, 6-inch pipe.

Bond Street, running from Temple to City Ledge, a distance of 631 feet, and lowered to $4\frac{1}{2}$.

Lake Street, running from Hawkins to West, a distance of 42 feet.

Beacon Street, running from Park to Kent, and thence from near Sacramento Street to F. R. R. Bridge, a distance of $2,567\frac{1}{2}$ feet.

Sacramento Street, running from Beacon Street to Cambridge line, 53 feet.

Kent Street, running from Beacon Street, North, $21\frac{1}{2}$ feet.

Ivaloo Street, running from Beacon Street, North, 6-inch in place of 4-inch, 20 feet.

Sacramento Street, running from Beacon Street, North, 20 feet.

Fremont Street, running from Main Street to a dead end, 256 feet, 6-inch in place of 3-inch.

Total 9,831½ feet.

Fremont Street to be added in, 256 “

10,087½ “

In reply to an inquiry of your Board, I have to say, that, after careful consideration, I find the general condition of the pipe in the following-named streets to be such that its relaying must become a question for early consideration:—

Beacon Street, from Washington Street to Cambridge Line, distance of 1,925 feet, 6-inch pipe.

Vine Street, from Washington Street to Railroad, distance of 200 feet, 6-inch pipe.

Bow Street, from Summer Street to Somerville Avenue, distance of 760 feet, 8-inch pipe.

Warren Avenue, from Bow Street to Columbus Avenue, distance of 716 feet, 6-inch pipe.

Washington Street, from opposite Drinking Fountain, to Bow Street, distance of 880 feet, 8-inch pipe.

Vinal Avenue, from Highland Avenue to Summer Street, distance of 970 feet, 6-inch pipe.

School Street, from Summer Street to Somerville Avenue, distance of 980 feet, 6-inch pipe.

Medford Street, from Somerville Avenue to East Cambridge Line, distance of 1,570 feet, 8-inch pipe.

Sacramento Street, from Beacon Street to Somerville Avenue, distance of 471 feet, 6-inch pipe.

Allen Street, from Somerville Avenue to Charlestown Street, distance of 700 feet, 6-inch pipe.

Lake Street, from Hawkins Street to distance of 415 feet, 6-inch pipe.

Cross Street, from Everett Street to Flint Street, distance of 700 feet, 6-inch pipe.

Oliver Street, from Franklin Street to Cross Street, distance of 1,100 feet, 6-inch pipe.

The following gates were set on mains extended during the year:—

Greenville Street, No.	Corner Boston Street,	1 6-inch gate.
“ “ So.	“ “ “	1 4-inch “
Bartlett “	“ Vernon “	1 6-inch “
Preston “	“ Summer “	1 6-inch “
Elm “	Opposite Chapel “	1 6-inch “
Sewall “	Corner Temple “	1 6-inch “
Wheatland “	“ Jaques “	1 6-inch “
“ “	“ Mystic Avenue	1 6-inch “
Ware “	“ Curtis “	1 6-inch “
Kensington “	“ Broadway,	1 6-inch “
Mason Avenue,	“ Orchard Street,	1 2-inch “
Wilson “	“ Broadway,	1 2-inch “
Jenny Lind Avenue,	“ Medford Street,	1 4-inch “
St. James “	“ Elm “	1 6-inch “
Franklin “	“ Franklin “	1 4-inch “
Porter Street,	“ Summer “	1 6-inch “
Cook “	“ Wyatt “	1 6-inch “
Beacon “	near Sacramento “	1 6-inch “
Carlton Street, corner	Lake “	1 6-inch “
“ “	“ Somerville Avenue,	1 6-inch “
Sidney “	“ Temple Street,	1 6-inch “
Jerome “	“ Montrose “	1 2-inch “
Chapel “	“ Elm “	1 4-inch “
Tenny Court, at Dead End,		1 4-inch “
Kingman Court, corner	Washington Street,	1 6-inch “

On account of relaying pipe the following changes were made in gates:—

Pearl Street, corner Cross Street, 4-inch gate changed to 6-inch.

Merriam Street, corner Somerville Avenue, 4-inch gate changed to 6-inch.

Hawkins Street, corner Washington Street, 3-inch gate changed to 6-inch.

Hawkins Street, corner Somerville Avenue, 3-inch gate changed to 6-inch.

Oliver Street, corner Franklin Street, 4-inch gate changed to 6-inch.

Morrison Street, corner Willow Avenue, 4-inch gate changed to 6-inch.

Morrison Street, corner Elm Street, 4-inch gate changed to 6-inch.

Everett Street, corner Webster Avenue, 4-inch gate changed to 6-inch.

Everett Street, corner Newton Street, 4-inch gate changed to 6-inch.

Lake Street, corner Hawkins Street, 4-inch gate changed to 6-inch.

Somerville Avenue, corner Prospect Street, 6-inch gate changed to 8-inch.

Franklin Street, corner Washington Street, 6-inch gate changed to 8-inch.

Ivaloo Street, corner Beacon Street, 4-inch gate changed to 6-inch.

All the gates and gate-boxes were inspected and repairs made, as follows : —

129 gates, found leaking, were repacked.

40 new boxes were set in place of decayed ones.

33 boxes have been raised and lowered to conform with grade
530 gates are in service to date.

The following hydrants have been set and located as follows : —

One on Farragut Avenue, near Holland Street.

“ “ “ “ “ Cambridge line.

“ “ Holland Street, “ Dover Street.

“ “ Weare “ “ dead end.

“ “ Elm “ opposite Williams Street.

“ “ Bond “ near City Ledge.

“ “ Franklin “ “ Palmer Avenue.

“ “ Wheatland “ “ Jaques Street.

“ “ “ “ “ Mystic Avenue.

“ “ Jaques “ between Wheatland and Temple Streets.

“ “ Hawkins “ opposite Lake Street.

“ “ Washington Street, corner Kingman Court.

“ “ Beacon “ opposite Harris Street.

One on Somerville Avenue, corner Union Square.

“ “ Washington Street, at Dodge's Blacksmith Shop.

“ “ Kingman Court, “ Fitchburg Railroad.

Nine of the old disk hydrants were found frozen, and thawed out, and four of them were burst beyond repairs, and four new ones set in their places. Twenty-six have been dug up and wastes repaired, and new valves put in. The hydrants have received the usual attention, especially during the extreme cold season, when they then required constant supervision, particularly those of the disk pattern, and no complaint, on account of freezing or disarrangement, was received from the Fire Department. The hydrant in Somerville Avenue, corner of Prospect Street, was discontinued. The large four-way, located in Davis Square fountain, was found to be broken in the post, and, upon consulting with the Chief Engineer of the Fire Department, it was deemed advisable to take it out, as it being liable to be broken at any time, by heavy stone teams, and a large 6-inch Chapman set at the corner of Dover Street, in its place. Twelve have been taken out, and, at the shop, received general repairs, and new ones set in their place. There are, in the city, 375 hydrants: Boston Machine, 128; Bigelow, 21; Chapman, 63; Holyoke, 101; Matthews, 12; Newport, 1; Flush, 10; Lowry, 2. Total, 375.

SERVICES.

Four hundred and fourteen have been laid, at an average cost of \$18.04, making the total number to date of 5,410, making a total length of 35 miles, 1,005 feet; 57 were put in to replace old ones, a number being too small, others being filled up with rust sediment and other causes; 271 were cleared of rust sediment; 143 were stopped by frost. There were 51 leaks, of which 29 were brokenleads, 8 by setting of trenches, 6 by pick holes, 3 by defective couplings, 5 by defective soldering; 108 have been dug up and re-tapped at corporation; 55 iron boxes have been set to replace old decayed wooden ones; 39 that have given great trouble and expense on account of freezing, have been lowered, and no repetition of the evil will occur as in the past. 18 have been fur-

nished with new iron boxes and side-walk stops; 15 have had new stop and wastes, and general repairs.

STAND-PIPES.

No new ones were set the past year. More are needed to meet the increasing demands of the street sprinkling. The one on Broadway, opposite, has been discontinued, by order of Highway Committee. The number in use is twenty-five; thirteen have had new packing, and other repairs, to the amount of \$30.03.

DRINKING FOUNTAINS.

These have had the usual care. The one on the corner of School and Medford Streets was removed to opposite side of the street, at an expense of \$28.15. The large fountain in Davis Square, having been knocked from its foundation by heavy stone teams, it has been re-set and raised fourteen inches, secured by one-inch iron bolts, and a brick inside wall, laid in Portland cement, at an expense of \$58.50. The one on Broadway, opposite the Park, has been re-set, and had other repairs to amount of \$9.50; is now in good order.

MISCELLANEOUS.

In the shops, 460 services were cut and fitted, 534 lead connections were made, 17,283 feet of 1-inch and 1½-inch pipe, were lined; gates and gate-boxes and hydrants were repaired, and all incidental work performed.

STOCK AVAILABLE FOR FUTURE USE TO JAN. 1, 1889.

Cast-iron pipe	\$1,818 00
Cement-lined pipe	190 00
Special castings	614 49
Gates and hydrants	590 00
Sundry fittings and material	233 41
Service pipe	340 15
Service material	513 28

\$4,299 33

TOOLS AND FURNITURE.

Tools for water-works	\$640 35
“ “ service	386 70
Furniture for stable department . .	1,176 50
“ “ office	271 00
Special patterns	250 00
	<hr/>
	\$2,724 55

Respectfully submitted,

NATHANIEL DENNETT,
Superintendent.

REPORT
OF THE
OVERSEERS OF THE POOR.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, March 13, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, March 13, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

BOARD OF OVERSEERS OF THE POOR.

HON. MARK F. BURNS, *Chairman ex-officio.*

COL. HERBERT E. HILL Ward One.

MR. EDWARD B. WEST Ward Two.

MR. DANIEL C. STILLSON Ward Three.

MR. CHARLES G. BRETT, *President* Ward Four.

COMMITTEES:

On Investigation and Relief . . . MESSRS. BRETT AND WEST.

On Finance MESSRS. HILL AND STILLSON.

CHARLES C. FOLSOM, *General Agent,*

FRANK W. KAAH, *Secretary.*

CITY OF SOMERVILLE.

To the Honorable the City Council of Somerville.

GENTLEMEN, — At the request of the Overseers of the Poor, the General Agent has submitted to them his report of the work of this department for the year 1888. This report, together with the accompanying tables, they adopt as their official report.

CHARLES G. BRETT, *President.*

HERBERT E. HILL.

EDWARD B. WEST.

DANIEL C. STILLSON.

REPORT OF THE GENERAL AGENT.

To the Mayor and Board of Overseers of the Poor.

GENTLEMEN, — I have the honor to submit to you the following report for the year 1888 :

The net expenses of this department have been \$11,082.91 ; the gross expenses, \$13,375.98, divided as follows : House rents, \$1,294.00.

We are at present paying rent for twenty-one families, eighteen of which are composed of widows, most of whom have children. In the other three there are old men who are unable to work by reason of old age or sickness. The highest rent is \$7.00 a month ; the lowest, \$4.00 ; the average, \$4.71. We have stopped paying rent for five families during the year on the ground that the children were old enough to earn something toward their support. The last part of the year there have been comparatively few applications for the payment of rent, as it is generally understood that the Board does not intend to be responsible for rent except in extreme cases. Other cities and towns do not pay rents to any great extent. I think the number can be still further reduced the coming year.

Board in Private Families,	. . .	\$1,371.77
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We have had during the year boarding in private families twenty-one persons, thirteen of them the entire year. The highest price paid per week was \$3.25 ; the lowest, \$1.00, being for children with relatives and for one adult who was able to work somewhat. The average price was about \$2.50 per week. One person was in Boston ; one at Cape Rosier, Maine ; the others in Somerville.

Other Cities and Towns,	. . .	\$1,631.36
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Sixteen families having settlements in Somerville, but living in other cities and towns, were aided at their homes during the year

and the expense was charged to us. In addition, twelve persons having settlements in Somerville were supported the whole or part of the year in the almshouses of other cities and towns, and the cost of their support also was charged to us. Public institutions, \$4,545.38.

This class also includes Insane Hospitals, State Almshouse, School for Feeble Minded, Reform School, House of Correction, and any private hospital for the sick.

INSANE HOSPITALS.

The city has paid for the support of thirty insane persons, twenty-two who were in hospitals last January being there now. Some have died, or have been discharged, and others have been sent to take their places. At present there are twenty-six. Of this number three have some property and the city is reimbursed by their guardians. The price for the support of insane persons is fixed by law at \$3.25 per week. Previous to 1888 cities and towns, in addition to this amount, paid for clothing furnished patients and for all damage done by them. During the past year no city or town has paid charges of this kind, although the trustees of the Danvers Hospital still send bills for "clothing and breakage." The solicitors of the several cities, and the Attorney General, are of the opinion that the word "support" in the statute covers the entire expense. Application was made to the legislature last winter by the trustees of the hospitals to have the laws changed so that they could collect charges for necessary clothing and breakage, but no change was made. Another effort will probably be made by them this winter for the same object. An association composed of secretaries and agents of overseers of the poor of cities and large towns has been formed, and it is very helpful, for it enables us to have a general understanding in all matters pertaining to the settlement laws, and to work in harmony and unison.

When a patient is committed to a hospital your agent looks up his history carefully, and, if he has not acquired a settlement in Somerville, we do not pay for his support; and if there is any reasonable way of collecting from relatives what we have paid out, every effort is made to do so.

STATE ALMSHOUSE AT TEWKSBURY.

There is one person in this institution for whom the city pays board. She has been there for several years, and is classed as "harmless insane." The cost of her support has been \$2.80 per week. I have given permits, and the city has paid the expenses of seven persons to the State Almshouse during the year. These persons were all State paupers, and were sent at their own request.

SCHOOL FOR FEEBLE-MINDED, SOUTH BOSTON.

A boy seven years old has been in the school during the entire year, and I see no prospect of his being discharged at present or in the near future. The cost is the same as in insane cases, \$3.25 per week.

HOUSE OF CORRECTION.

The city is obliged by law to pay the county for board of persons committed under Chap. 207, Sec. 29, of the Public Statutes, provided such persons have a settlement in Somerville. The charge for board in these cases is \$1.60 per week; and we have been allowed for their work, .60; leaving a balance for the city to pay of \$1.00 a week. It has also been the custom for the county to send bills for the board of persons committed for vagrancy. Not being satisfied that the city was liable for such persons, I obtained the opinion of the city solicitor, which was to the effect that we were not liable for the board of such persons as were committed for vagrancy under Chap. 207, Sec. 42, Pub. Stats. We now have an unpaid bill of \$13.18 from the county for the board of a person committed under this law.

CARNEY HOSPITAL, SOUTH BOSTON.

Permits have been given to several sick persons to enter Carney Hospital. Arrangements were made with the superintendent more than a year ago, to receive at a reduced rate patients sent from this city by the Overseers of the Poor. This has been a great convenience, as we have no place of our own where they can be cared for.

GROCERIES AND PROVISIONS, \$1,725.56.

Formerly a store was kept in the rear of the Police Building, for giving out these goods to paupers; but, as most of them were either old or feeble, and as we did not have facilities for delivering the goods, it was thought best to discontinue the store, and give orders on reliable stores in different parts of the city; in all cases, unless otherwise ordered, conforming to the following list of articles: flour; rye, oat, corn, and graham meal; potatoes, bread, crackers, rice, beans, fresh meat for soup, salt beef, pork, fish, molasses, salt, soap, and a small amount of tea and sugar.

BOOTS AND SHOES, \$164.65.

In most cases, where boots and shoes have been given out, they have been given so that children could attend the public schools. I have refused to give them in some cases (when perhaps the children really needed them) when asked to do so by teachers or the truant officer, where the parents were not paupers and did not ask aid from the city.

DRY GOODS AND CLOTHING, \$47.05.

A very small amount has been expended under this head. Orders have been given only when help of this kind seemed strictly necessary.

BURIALS, \$175.15.

Orders were given for the burial of fourteen persons. It would be a great convenience to have a cemetery near by in which the city owned a lot, for the burial of paupers.

FUEL, \$677.60.

Wood and coal have been given during the winter to a large extent. It seems to me that aid in this way really helps more than in any other. If a family of children can be kept warm in winter, their friends, in most cases, will supply them with food. The custom has been to give a quarter of a ton of coal and a half a foot of wood each month, from November to March inclusive. We have given a little in the summer, in cases of sickness.

I would suggest the expediency of purchasing a few cords of hard wood in the autumn, and having it housed in some convenient place. Where a family in which there is a man calls for aid, as is frequently the case, let him work for what aid they receive. This plan has been successful in other cities, and will in most cases prevent coming for help except when it is really needed. Arrangements could be made to dispose of the prepared wood, so that the city would be financially the gainer in the end.

SALARIES, \$1,450.

The amount paid for salaries is only \$50.00 more than it was prior to 1885, when the law governing the Overseers of the Poor was changed. The General Agent receives \$1,200, and the Secretary, \$250.

SUNDRIES, \$289.46.

This item includes the travelling expenses of the General Agent, cash paid to paupers, stationery, &c:

GENTLEMEN OF THE BOARD,—It affords me great pleasure to thank you for your uniform courtesy, and for the readiness on your part to give me your support and advice in all matters brought before you for consideration. I will refer you to the statistical tables, prepared by the Secretary, for further information.

Respectfully submitted,

C. C. FOLSOM, *General Agent.*

TABLE NO. 1.

PARTIAL SUPPORT (OUT-DOOR RELIEF).

Families aided during the year	191
Persons " " " "	761
Persons having a settlement in Somerville	387
" " " " other cities and towns	201
" " no settlement, chargeable in part to the State	173
Persons aided in other cities and towns chargeable to Somerville	40

TABLE NO. 2.

FULL SUPPORT.

	No. of Persons.
During the whole year	39
" part of the year	29
Sane	38
Insane	30
In almshouses	12
In private families	17
In Boston hospitals	10

TABLE NO. 3.

PAY ROLLS FOR	1884.	1885.	1886.	1887.	1888.
January	\$2,913 20	\$2,578 43	\$3,296 01	\$2,769 44	\$3,139 51
February	980 45	1,198 38	965 30	834 62	852 68
March	1,487 43	2,293 47	908 12	1,296 90	1,245 99
April	1,716 54	1,400 97	1,805 75	1,073 43	1,035 71
May	718 23	639 81	662 41	691 49	523 61
June	1,750 43	1,211 58	972 22	927 13	1,480 64
July	1,415 09	2,373 39	1,663 89	1,500 01	883 96
August	1,231 11	710 83	590 00	510 11	755 07
September	2,072 35	898 50	774 84	1,431 86	1,571 43
October	1,023 72	1,773 42	1,395 11	725 01	678 14
November	928 79	434 94	669 28	696 69	727 12
December	1,135 18	916 60	638 90	974 20	478 12
Total,	\$17,272 52	\$16,430 32	\$14,341 83	\$13,430 89	\$13,375 98

TABLE No. 4.
EXPENDITURES FOR THE YEAR 1888.

	Rent.	Board.	Groceries.	Towns and Cities.	Public Institutions.	Boots and Shoes.	Dry Goods.	Burials.	Salaries.	Fuel.	Sundries.	Totals.
January .	\$121 50	\$126 05	\$222 55	\$949 41	\$1,374 15	\$7 75	\$7 00	\$5 00	\$120 83	\$152 20	\$53 07	\$3,139 51
February .	116 50	120 69	160 17	66 00	-	45 80	7 00	35 00	120 83	146 25	34 44	852 68
March . .	112 50	126 05	169 88	-	553 82	1 50	-	15 00	120 84	115 00	31 40	1,245 99
April . .	136 50	143 42	153 00	75 36	354 71	21 85	-	5 15	120 83	3 50	21 39	1,035 71
May . . .	109 00	122 19	69 75	-	18 86	4 50	8 00	50 00	120 83	2 00	18 48	523 61
June . . .	99 00	137 63	212 12	13 75	802 75	18 60	-	25 00	120 84	21 00	29 95	1,480 64
July . . .	104 00	94 18	129 77	97 05	309 66	3 75	4 50	5 00	120 83	-	15 22	883 96
August . .	99 00	95 04	122 12	299 78	-	1 50	8 55	-	120 83	-	8 25	755 07
September	99 00	90 78	141 00	53 43	1,029 63	16 10	-	10 00	120 84	-	10 65	1,571 43
October .	103 00	114 48	111 00	76 58	101 80	5 25	-	-	120 83	-	45 20	678 14
November	99 00	86 78	220 20	-	-	33 05	2 00	15 00	120 83	141 15	9 11	727 12
December	95 00	114 48	14 00	-	-	5 00	10 00	10 00	120 84	96 50	12 30	478 12
Total . .	\$1,294 00	\$1,371 77	\$1,725 56	\$1,631 36	\$4,545 38	\$164 65	\$47 05	\$175 15	\$1,450 00	\$677 60	\$289 46	\$13,375 98

TABLE NO. 5.

RECEIPTS FROM VARIOUS SOURCES FOR THE SUPPORT OF PAUPERS.

Commonwealth of Massachusetts	\$609 24
City of Boston	397 60
“ “ Cambridge	101 01
“ “ Fall River	3 25
“ “ Lowell	33 90
“ “ Lawrence	9 35
“ “ Salem	43 10
“ “ Taunton	8 00
Town of Arlington	35 60
“ “ Brookline	29 50
“ “ Groton	11 90
“ “ Leominster	20 15
“ “ Manchester	49 50
“ “ Stoneham	26 15
“ “ Sandwich	12 40
“ “ Woburn	60 30
Guardians and relatives of paupers and insane persons,	842 12
Total	<u>\$2,293 07</u>

TABLE NO. 6.

RECAPITULATION.

Received from the Commonwealth, cities, towns, and individuals	\$2,293 07
Appropriation	14,000 00
Total receipts	16,293 07
Total expenditures	13,375 98
Balance	2,917 09
Net expenditures	11,082 91

FRANK W. KAN, *Secretary.*

REPORT OF THE BOARD OF HEALTH.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

OFFICE OF THE BOARD OF HEALTH, CITY HALL,
SOMERVILLE, MASS., Jan. 30, 1889.

To His Honor the Mayor and the City Council.

GENTLEMEN, — Agreeably with law and usage the Board of Health presents herewith its eleventh annual report, consisting of a condensed statement of the sanitary conditions of Somerville, and the doings of the Board during the year ending Dec. 31, 1888.

MEMBERSHIP.

Mr. George C. Skilton, after seven years of honorable service, retired from the Board Feb. 6, he having changed his residence to Bedford, Mass. April 11, Albion A. Perry was appointed by the Mayor and Board of Aldermen a member of the Board, but declined to serve. April 25, Charles H. Crane was appointed by the Mayor and Aldermen a member of the Board for the remainder of the current year, and for the year commencing the first Monday in February, 1889, and at once entered upon the duties of the office.

ORGANIZATION.

The Board organized May 2, by electing officers as follows: —

Chairman, THOMAS M. DURELL, M.D.

Clerk, GEORGE I. VINCENT.

Mr. William H. Brine, (40 Houghton Street), continued to serve as Inspector until May 14.

May 29, the name of Caleb A. Page, a war veteran, having, at the request of the Board, been certified by the civil service examiners for the office of Inspector, the Board proceeded to the election of an Inspector, which resulted in the choice of Caleb A. Page.

NUISANCES.

The tabulated method of reporting nuisances abated is continued in this report; the arrangement being by the months when the complaints were received.

NUISANCES ABATED IN THE YEAR 1888.

	January.*	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
Bedding used in Typhoid													
Fever on premises	-	-	-	-	-	-	-	-	1	-	-	-	1
Cellar damp	-	4	4	1	4	-	1	3	2	-	-	-	19
Cesspool defective	-	-	-	-	1	1	1	2	-	-	-	-	5
“ offensive	-	-	-	-	-	-	-	1	-	1	-	-	2
“ overflowing	-	-	-	-	-	-	2	2	2	1	-	-	7
Connections of drainage													
pipes defective	2	3	7	2	1	1	-	-	-	-	-	-	16
Cows kept in basement of													
house	-	-	-	-	-	-	-	-	-	-	1	1	2
Drainage defective	3	4	12	2	9	4	4	5	2	1	-	-	46
“ emptying into cel-													
lar	1	3	1	1	2	2	1	5	-	1	1	1	19
Drainage emptying on sur-													
face	1	1	2	1	3	2	1	3	3	2	-	-	19
Drainage not ventilated . .	5	6	3	2	1	-	-	1	-	1	-	-	19
Drain-pipe defective . . .	1	2	-	-	-	-	-	-	-	-	-	1	4
Drying hair, offensive . . .	-	-	-	-	-	-	-	1	-	-	-	-	1
Furnace without cold-air													
box	1	-	-	-	-	-	-	-	-	-	-	-	1
Hennery offensive	-	-	-	-	-	-	1	-	-	-	-	-	1
Hens kept in cellar	1	-	-	-	-	1	-	-	-	-	-	-	2
“ “ privy	-	-	-	-	-	-	1	-	-	-	-	-	1
Manure exposed and offen-													
sive	1	-	1	1	5	3	2	5	1	-	1	1	21
Offal on land	-	-	-	-	-	-	1	2	-	-	3	-	6
Offensive odor in and about													
dwellings	1	-	-	-	1	-	1	1	1	-	-	-	5
Opening in drain-pipe in													
cellar	-	1	-	-	-	-	-	-	-	-	-	-	1
Premises filthy	-	-	-	-	13	1	-	2	1	-	-	-	17
“ untidy	-	-	-	-	4	4	1	2	-	-	1	-	12
Privy-vault defective	1	-	-	1	1	2	1	1	-	1	-	-	8
“ full	-	6	2	3	4	11	8	13	2	4	2	-	55
“ offensive	8	10	-	8	12	9	8	16	4	4	2	1	82
Slaughtering “	-	-	-	-	-	1	-	-	-	-	-	-	1
Slops thrown on surface . .	-	-	-	1	-	1	-	-	1	-	-	-	3
Stable and stable premises													
filthy and offensive	-	-	-	-	5	1	3	3	1	-	-	-	13
Stagnant water in house													
cellar	-	1	2	-	-	2	-	1	-	-	-	-	6
Stagnant water on surface . .	-	-	-	1	10	3	-	2	1	1	-	-	18
Waste-pipe defective	1	-	-	-	-	-	-	1	-	1	-	-	3
“ not trapped	4	11	9	5	1	4	-	4	-	1	-	-	39
Water-closet defective	1	2	-	-	1	-	1	2	-	2	2	-	11
“ insufficiently													
supplied with water	4	1	1	-	-	3	1	-	1	1	-	-	12
Water-closet not supplied													
with water	-	-	-	-	-	2	-	1	1	-	1	-	5
Water-closet offensive	2	1	1	-	4	1	-	1	-	1	1	-	12
Wooden waste-pipes and													
drains	-	1	-	1	-	-	-	-	-	-	-	-	2
Total	38	57	45	30	82	59	39	80	24	23	15	5	497

* Including nuisances referred to us by the Board of 1887.

Number of nuisances abated	497
“ “ “ referred to the Board of 1889	107
“ “ “ complained of	604
“ “ complaints (many covering more than one nuisance)	318
“ of tenements ordered vacated	25
“ “ same since made habitable	23
“ “ “ vacated in compliance with our orders	1
Number of notices mailed	327
“ “ “ served by constables	18
“ “ letters written	9

Verbal notices from the Inspector have, in many cases, led to the abatement of nuisances without further action.

PRIVATE STREETS.—In our last report we called attention to the bad sanitary condition of some of the private streets. It is true the city is not responsible for their maintenance; but, as concerted action by the abutters can hardly be expected, good judgment would seem to require that they be cared for sufficiently, at least, to protect the public health. This can often times be done at very little outlay, by levelling the surface with surplus materials of no value.

Dane Court has been put in good order during the past year by the Highway Department, at our request. A neighboring street was being graded and the surplus filling was spread in the court and covered with ashes.

South and Willow Streets have also been improved by the same department, by placing several hundred loads of gravel thereon. A serious nuisance, to which attention was called in the last annual report of this Board, has thus been abated.

Chestnut Street, extending eastwardly from Poplar Street, still needs attention, and also Franklin Avenue, near Franklin Street, the difficulty in the avenue being due chiefly to the flow of water from Franklin Street, for which a catch basin should be provided.

PERMITS.

Deeming that the density of the population in many sections of the city required some restriction upon the keeping of cows,

the following regulations were adopted May 2, and published in the three following issues of the Somerville Journal and the Somerville Sentinel :

REGULATIONS CONCERNING COWS.

IN BOARD OF HEALTH OF THE CITY OF SOMERVILLE,
May 2d, 1888.

Ordered: That on and after July 1st, 1888, no person shall keep, or allow to be kept, within the limits of the City in any building, or on any premises, of which he may be the owner, lessee, tenant, or occupant, more than one cow, without a written permit from the Board of Health. Every person keeping a cow shall cause the place where it is kept to be well ventilated and drained, and kept at all times in a cleanly and wholesome condition. Such permit may be revoked at any time when such revocation shall appear to the Board to be necessary for the public health and safety. All such permits shall expire on the first day of May annually.

A true copy of regulations passed by the Board of Health of Somerville, May 2, 1888.

Attest:

GEORGE I. VINCENT, *Clerk.*

Since the adoption of these regulations several parties who kept large numbers of cows have either gone out of the business or removed elsewhere. One party has been prosecuted for keeping cows without a permit, and conviction secured.

Applications for permits to keep cows, swine, and goats, to collect grease and to remove manure, have been disposed of as follows:—

COWS.—Applications were received from 65 parties for permits to keep 319 cows. Permits were granted to 55 parties for 257, and were refused for the balance. No fee.

SWINE.—Applications received for 198; permits granted for 194 and refused for 4. Fee, \$1.00 for each swine.

GOATS.—Applications received for 22 and they were all granted. Fee, \$1.00 for each goat.

GREASE.—Number of applications received, 5; all of which were granted. Fee, \$2.00. One of the applicants resided in Boston and the others were citizens of Somerville. An inspection of the wagons is made monthly. We learn from the Board of Health of Boston and Cambridge that 15 Somerville parties were licensed during the year to collect grease in the former city, and 4 in the latter.

MANURE.—We have granted 14 permits to haul manure through the streets of the city in the day time between May 1 and Dec. 1, and 16 permits to remove manure from stables within the city, during the same period, and convey it through the streets, under the restrictions stated in our last report.

PEDLERS.

In pursuance of ordinance No. 40, entitled "Hawkers and Pedlers," 102 certificates of record have been given to pedlers of goods in our streets. This number is in addition to the 137 who received such certificates last year, but a great many of them have given up the business.

A monthly inspection is made at the Police Building, to see that the name and number are properly painted on the wagon and that the wagon is kept clean.

ASHES.

The contract with Jeremiah McCarthy for the removal of ashes expired April 29.

The collections up to that time had been once a week in each ward; but in the more densely populated wards, especially Ward Two, it had been found impracticable to collect all the ashes in one day. Accordingly new districts, to take effect with the new contract, were established as follows:—

DISTRICT 1. Beginning at the Boston line and bounded by the northerly line of Washington Street, the westerly line of Prospect Street, the northerly line of Concord Avenue extended across Beacon Street to the Cambridge line, and by the Cambridge and Boston lines.

DISTRICT 2. Beginning at the Boston line, and bounded by the northerly line of Washington Street, the easterly lines of Medford and Cross Streets (the latter prolonged to the Mystic River), Mystic River and the Boston line.

DISTRICT 3. Beginning at the junction of Cross and Medford Streets, and bounded by the easterly line of Medford Street, the northerly line of Highland Avenue, the easterly line of Cedar Street prolonged to the Medford line, the Medford line, Mystic River, and the easterly line of Cross Street prolonged to the river.

DISTRICT 4. Beginning at the intersection of Medford and Washington Streets, and bounded by the northerly line of Washington Street, the westerly line of Prospect Street, the northerly line of Somerville Avenue, the easterly lines of Mossland and Cedar Streets, the northerly line of Highland avenue, and the easterly line of Medford Street.

DISTRICT 5. Beginning at the intersection of Prospect Street and Somerville Avenue, and bounded by the westerly line of Prospect Street, the northerly line of Concord Avenue prolonged to the Cambridge line, the Cambridge line (extending westwardly) and the northerly line of Somerville Avenue.

DISTRICT 6. All of that portion of the city lying west of the easterly lines of Cedar and Mossland Streets.

It will be seen by these descriptions that the side lines of streets are used as boundaries, and not the middle lines; so that ashes are removed from the sidewalks on both sides of the street on the same day.

In response to solicitations published in the Somerville Journal of April 14, and mailed to various parties, proposals to remove ashes during the year commencing April 30, were received as follows: from

Martin Gill	.	.	.	.	.	\$2,700
T. F. Crimmings	.	.	.	.	.	2,575
Jeremiah McCarthy	.	.	.	.	.	2,575
John P. Downey	.	.	.	.	.	2,490

and the contract was awarded to John P. Downey, he furnishing a bond, with sureties, in the sum of three thousand dollars.

The collections are made on the following named days:—

Monday in District 1.

Tuesday in District 2.

Wednesday in District 3.

Thursday in District 4.

Friday in District 5.

Saturday in District 6.

The collector is required to remove all *ashes, rubbish, and house dirt* (free from filth and offal) that is placed in barrels or boxes on the outer edge of the sidewalk before 8 o'clock A.M. of the day for collection.

HOUSE OFFAL.

House offal has been collected by Henry Gray, under a three-years' contract dating from June 26, 1886, for the sum of nine hundred dollars per annum.

He is required to make the collections at least once every week in December, January, February and March; twice a week in April, October, and November, and three times per week in the five remaining months.

The contractor informs us that about four hundred and fifty cords were collected during the year.

NIGHT SOIL.

Night soil has been removed during the year by Mr. R. M. Johnson of Arlington; his contract, which expired Feb. 1, 1888, having been renewed for three years. Orders are taken at the Police Station on Bow Street, and at Knowles Bros.' grocery store on the corner of Perkins and Franklin Streets. The removal is made by the "odorless" process, and the price is four dollars for every load, or part of a load, of eighty cubic feet.

We are informed by the contractor that 568 loads have been removed in the year 1888.

SEWERS.

In the last two reports of this board, the necessity for sewers in Madison, Montrose, and Woodbine Streets has been noted. We understand that petitions for sewers have been presented to the Board of Aldermen by the owners on the two streets first named, and we hope they will be favorably considered. The soil is a heavy clay, and the land sloping, so that a great part of the sewage runs on the surface. In Woodbine Street the land is wet, and a sewer is needed both for house and surface drainage. A sewer should also be laid in Kent Court. The preliminary steps for this sewer were taken last year, but final action was postponed, because a few of the abutters objected on account of the expense. The neighborhood is thickly settled and the land flat, and cesspools are inadequate.

DEATHS.

The number of deaths in the city in 1888 was 601, and there were 25 still-births.

MORTALITY IN SOMERVILLE IN 1888.

[illegible]

MORTALITY IN SOMERVILLE IN 1888 — *Continued.*

	January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.	Total.
<i>Genito-Urinary Organs.</i>													
Bright's disease	8	3	3	6	-	1	1	2	1	-	1	2	28
Diabetes	-	-	-	-	-	-	-	1	-	-	-	-	1
Cystitis	-	-	-	-	1	-	-	-	1	-	-	-	2
Nephritis	-	-	-	-	-	-	1	-	-	-	-	-	1
DEVELOPMENTAL DISEASES.													
<i>Of Children.</i>													
Marasmus	-	4	2	1	2	2	2	4	3	6	-	1	27
Premature birth and infantile debility.	2	-	-	-	2	-	2	2	2	-	4	2	16
<i>Of Old People.</i>													
Old age	2	-	3	1	5	-	-	2	6	1	2	3	25
General debility	2	-	2	2	-	-	1	-	1	-	1	-	9
VIOLENT DEATHS.													
Strangulated hernia	-	-	1	-	-	-	-	-	-	-	-	-	1
Accident	1	-	-	-	-	1	-	-	-	-	-	1	3
Accidental drowning	-	-	-	-	-	-	-	2	-	-	-	-	2
Railroad	-	-	-	1	-	1	-	-	-	-	-	-	2
Burn	-	-	-	-	-	-	1	-	-	-	-	-	1
Hemorrhage	1	-	1	-	-	-	-	-	-	-	-	-	2
<i>Suicide</i>	-	-	-	1	-	-	-	1	-	1	-	1	4
<i>Unknown</i>	2	-	-	-	1	-	-	1	-	-	-	1	5
Total.	66	36	61	46	43	29	56	63	63	48	44	46	601
Still-born	3	2	2	3	2	2	-	2	2	2	2	3	25

Population (estimated) 35,969
 Death rate per thousand 16

DISEASES DANGEROUS TO PUBLIC HEALTH.

Of the diseases classed by this board as dangerous to public health, scarlet fever, diphtheria, and typhoid fever are the only ones that have visited our city during the year.

SCARLET FEVER. — This disease, which was specially prevalent in the last three months of 1887, subsided in the winter of 1887-8. 123 cases and 15 deaths were reported during the year 1888, of which 88 cases and 13 deaths occurred in the first four months.

In 1887 there were 202 cases and 31 deaths, of which 118 cases and 27 deaths occurred in the last three months. Warning

cards are placed on the houses, and the premises are fumigated after the termination of the disease.

DIPHTHERIA. — This disease has increased over the year 1887, but its prevalence has not been greater than in the average of previous years. 75 cases and 21 deaths were reported, as compared with 44 cases and 11 deaths in 1887, and 91 cases and 20 deaths in 1886.

We use warning cards and fumigation in dealing with this disease, the same as with Scarlet Fever, and we also have the sanitary condition of the premises investigated. The Inspector's table of the sanitary condition of premises visited by this disease, which has been published in the reports of previous years, is omitted from this report.

TYPHOID FEVER. — More deaths have occurred from Typhoid Fever during the past year than in any other of the last ten years, there having been 63 cases and 17 deaths, of which 42 cases and 10 deaths occurred in September, October, and November. This result was probably due to the great rain-fall, the warmth, and the exposed condition of the ground.

We examine the sanitary condition of premises where this disease occurs, but do not use a warning card or fumigate.

SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER REPORTED
IN 1888.

MONTHS.	SCARLET FEVER.			DIPHTHERIA.			TYPHOID FEVER.		
	Cases reported.	Number of deaths.	Percentage of deaths.	Cases reported.	Number of deaths.	Percentage of deaths.	Cases reported.	Number of deaths.	Percentage of deaths.
January	31	5	16	5	1	20	4	3	75
February	10	3	30	10	3	30	1	-	-
March	26	4	12	5	-	-	1	-	-
April	14	1	7	9	3	33	2	-	-
May	7	1	14	2	1	50	2	-	-
June	1	1	100	6	1	17	-	-	-
July	2	-	-	5	2	40	4	2	50
August	1	-	-	2	-	-	5	-	-
September	2	-	-	8	1	12	19	4	21
October	1	-	-	7	4	58	14	3	21
November	14	-	-	10	4	40	9	3	33
December	8	-	-	6	1	17	2	2	100
Total	123	15	12	75	21	28	63	17	27

• MAP OF •
• SOMERVILLE •
• 1889 •

• SCALE •
0 500 1000 1500 2000 2500 3000
Feet

SHOWING HEALTH DISTRICTS.



Sewers shown thus: - - - - -

DEATHS FROM SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER IN THE LAST TEN YEARS.

MONTHS.	SCARLET FEVER.										DIPHTHERIA.										TYPHOID FEVER.										
	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	1879.	1880.	1881.	1882.	1883.	1884.	1885.	1886.	1887.	1888.	
January .	4	2	-	-	2	-	2	-	1	5	6	4	7	7	11	2	1	2	2	1	2	-	-	-	1	2	1	2	-	-	3
February .	1	1	-	1	-	-	1	-	-	3	4	-	-	4	5	3	3	2	2	1	3	-	-	-	1	-	1	-	-	-	
March .	1	1	-	-	1	1	1	1	1	4	-	-	7	7	3	3	3	1	1	-	-	-	2	1	-	-	-	-	2	-	
April .	2	-	-	-	1	1	-	5	-	1	1	1	2	8	6	1	2	1	1	3	-	-	-	-	-	-	-	-	1	-	
May .	-	-	-	1	-	-	-	-	2	1	1	-	-	3	5	1	2	2	4	-	1	1	-	1	-	-	1	-	-	-	
June .	1	-	-	-	1	-	1	-	1	1	1	-	3	3	2	3	1	2	2	2	1	1	-	1	1	-	-	-	-	-	
July .	2	-	-	-	-	2	-	-	-	-	-	-	2	2	1	3	2	2	1	-	2	-	-	-	1	1	1	-	1	2	
August .	-	-	-	-	1	-	-	-	-	-	4	-	-	3	-	1	-	2	-	-	-	-	-	-	1	1	1	1	1	2	
Sept. .	-	-	2	-	1	1	1	1	-	-	2	2	-	2	1	1	4	3	3	2	1	1	1	1	3	2	2	3	1	4	
October .	-	-	-	-	-	1	-	-	6	-	5	2	6	1	1	2	2	1	2	3	4	-	2	2	1	3	-	1	2	3	
Nov. .	3	-	-	-	-	3	2	-	11	-	2	1	2	7	1	4	5	2	1	4	1	1	1	1	3	-	2	1	1	3	
Dec. .	2	-	-	2	-	1	1	-	10	-	4	8	3	4	5	1	4	3	2	1	2	-	-	-	1	1	-	-	-	2	
Total .	16	6	1	4	6	8	14	3	31	15	29	19	44	52	31	21	28	20	11	21	3	7	8	8	13	8	11	3	11	17	

DISTRICTS.

The several tabulated statistics of mortality, dangerous diseases, and nuisances in the ten health districts into which the city was divided by the Board of Health of 1878, as shown by the accompanying map, are continued in this report. The map also shows the location of sewers. The increase in population is assumed to have been the same, relatively, as the increase in the number of assessed polls, and to have been substantially uniform in the several districts.

TABLE OF DEATHS IN EACH DISTRICT DURING THE LAST TEN YEARS, EXCLUSIVE OF DEATHS IN THE MCLEAN ASYLUM.

Districts	I.		II.		III.		IV.		V.		VI.		VII.		VIII.		IX.		X.		Entire City.	
	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.
Area	337 A.		107 A.		93 A.		171 A.		361 A.		285 A.		194 A.		482 A.		174 A.		456 A.		2,660 A.	
In 1889. Population	6,555		6,395		2,479		4,398		6,874		1,519		3,755		1,116		1,997		881		35,969	
	981		916		412		688		1,091		372		617		249		396		219		5,941	
	Average in each dwelling.	6.7	7.	6.	6.4	6.3	4.1	6.1	4.5	5.	4.	6.1	4.5	5.	4.	6.1	4.	6.1	4.	6.1	4.	6.1
YEAR.	I.		II.		III.		IV.		V.		VI.		VII.		VIII.		IX.		X.		Entire City.	
	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.	No. of Deaths.	Rate per 1,000.
1879	92	21	50	12	29	18	62	22	77	17	14	14	22	9	14	19	16	12	9	16	385	16
1880	104	23	56	13	34	20	55	18	70	15	30	28	32	12	18	24	12	10	11	18	423	17
1881	111	23	64	14	41	23	48	15	62	12	36	32	38	14	19	22	13	13	8	12	445	17
1882	119	24	57	12	42	22	58	17	72	14	32	27	43	15	11	13	17	11	13	19	464	17
1883	138	26	59	12	49	25	60	17	76	14	40	33	51	17	17	13	28	18	9	13	527	18
1884	148	27	55	10	42	20	52	14	69	12	32	25	35	11	14	15	27	16	8	11	482	16
1885	152	28	56	11	40	19	72	20	78	14	31	24	53	13	13	14	25	15	11	15	531	18
1886	115	20	51	9	38	17	59	15	85	14	37	28	44	13	11	11	20	14	19	24	479	15
1887	182	29	54	9	45	19	81	19	87	13	37	25	62	17	20	19	26	11	12	14	606	18
1888	148	23	68	11	44	18	62	14	117	18	33	22	50	13	16	14	28	14	13	15	579	16
Average death rate for 10 years.	-	24	-	11	-	20	-	17	-	14	-	26	-	14	-	17	-	13	-	16	-	17

TABLE SHOWING THE FIVE PRINCIPAL CAUSES OF DEATH IN SOMERVILLE IN 1888, WITH THE NUMBER AND RATE IN EACH DISTRICT.

DISTRICTS.	CONSUMPTION.		PNEUMONIA.		HEART DISEASE.		CHOLERA INFANTUM.		BRIGHT'S DISEASE.	
	No. of Deaths.	No. per 1,000 of pop.	No. of Deaths.	No. per 1,000 of pop.	No. of Deaths.	No. per 1,000 of pop.	No. of Deaths.	No. per 1,000 of pop.	No. of Deaths.	No. per 1,000 of pop.
I.	13	1.98	12	1.83	11	1.68	15	2.29	9	1.37
II.	10	1.56	9	1.41	7	1.09	2	.31	7	1.09
III.	6	2.42	4	1.61	2	.81	3	1.21	2	.81
IV.	12	2.73	7	1.59	4	.91	2	.45	1	.23
V.	24	3.49	11	1.60	10	1.46	3	.44	6	.87
VI.	3	1.98	5	3.29	-	-	6	3.96	-	-
VII.	7	1.89	6	1.59	4	1.07	2	.53	1	.27
VIII.	2	1.79	3	2.69	2	1.79	0	-	-	-
IX.	2	1.00	5	2.50	1	.50	1	.50	2	1.00
X.	2	2.27	-	-	4	4.54	1	1.14	-	-
Total	81	2.28	62	1.72	45	1.25	35	.94	28	.78

TABLE OF SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER IN EACH DISTRICT IN 1888.

DISTRICTS.	SCARLET FEVER.				DIPHTHERIA.				TYPHOID FEVER.			
	Cases reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.	Cases reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.	Cases reported.	Deaths.	Cases per 1,000 of pop.	Deaths per 1,000 of pop.
I.	23	4	3.51	.61	16	7	2.44	1.07	15	3	2.29	.46
II.	26	3	4.07	.47	6	2	.94	.31	5	2	.78	.31
III.	2	1	.81	.40	6	1	2.43	.40	6	3	2.43	1.21
IV.	6	-	1.36	-	12	5	2.72	1.14	8	2	1.71	.45
V.	14	1	2.04	.15	20	1	2.89	.15	11	3	1.59	.45
VI.	4	-	2.63	-	3	1	1.98	.66	2	-	1.32	-
VII.	21	1	5.59	.27	4	2	1.07	.53	4	-	1.07	-
VIII.	8	2	7.17	1.77	-	-	-	-	5	1	4.52	.88
IX.	15	3	7.51	1.50	6	1	3.00	.50	4	2	2.00	1.00
X.	4	-	4.54	-	2	1	2.27	1.13	3	1	3.40	1.13
Total	123	15	3.42	.42	75	21	2.09	.59	63	17	1.75	.48

RATES PER THOUSAND OF POPULATION OF CASES OF SCARLET FEVER, DIPHTHERIA, AND TYPHOID FEVER REPORTED, AND OF DEATHS FROM THE SAME, IN THE LAST SEVEN YEARS.

DISTRICTS.	1882.			1883.			1884.			1885.			1886.			1887.			1888.			Average for Seven Years.		
	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.	Scarlet Fever.	Diphtheria.	Typhoid Fever.			
I.	{ Cases. . { Deaths.	1.00 —	7.17 2.79	2.39 —	4.98 0.96	3.25 0.57	1.91 0.38	1.26 0.18	5.76 1.26	5.12 2.20	1.83 0.55	2.25 —	2.59 0.52	0.86 0.17	10.48 2.10	1.45 0.32	2.74 0.64	3.51 0.61	2.44 1.07	2.29 0.46	5.22 0.57	3.97 1.25	2.34 0.42	
II.	{ Cases. . { Deaths.	— —	2.04 0.20	0.80 0.40	4.32 0.98	4.32 0.98	3.53 0.20	1.66 0.19	1.11 0.37	1.50 0.41	1.50 0.19	1.77 —	2.12 0.35	0.89 —	1.82 —	0.66 —	1.16 0.17	4.07 0.47	0.94 0.31	0.78 0.31	2.32 0.12	1.81 0.37	1.11 0.18	
III.	{ Cases. . { Deaths.	3.69 —	7.90 3.16	0.53 0.53	1.01 —	6.58 1.52	3.04 —	1.91 —	4.76 0.48	1.45 0.48	0.48 —	5.03 0.46	0.46 0.46	— —	3.84 1.71	0.85 0.43	0.85 0.43	0.81 0.40	2.43 0.40	2.43 1.21	5.14 0.64	3.49 0.99	1.03 0.31	
IV.	{ Cases. . { Deaths.	1.78 0.59	3.56 0.59	1.78 0.30	1.71 0.57	5.42 0.29	0.29 —	0.54 0.54	2.15 0.27	1.64 1.09	1.36 0.82	4.38 0.26	0.77 0.26	0.77 0.26	3.85 0.96	2.16 1.20	1.20 0.48	1.36 —	2.72 1.14	1.71 0.45	4.29 0.34	2.63 0.69	1.30 0.49	
V.	{ Cases. . { Deaths.	1.90 0.38	8.54 2.28	0.95 0.19	1.64 0.73	7.67 1.46	2.74 —	1.20 0.34	3.43 0.52	2.97 0.17	0.17 0.17	3.46 —	4.78 1.65	0.33 —	4.00 0.62	1.54 0.31	0.93 0.31	2.04 0.15	2.89 0.15	1.59 0.45	3.39 0.19	4.55 0.69	0.97 0.31	
VI.	{ Cases. . { Deaths.	1.72 —	16.32 7.73	0.86 —	3.31 0.83	6.61 1.65	0.83 —	— —	12.44 4.67	16.59 3.16	0.79 —	2.99 0.75	1.49 —	— —	6.96 0.70	1.39 —	2.08 —	2.63 —	1.98 0.66	1.32 —	9.18 0.55	8.12 2.55	1.19 0.12	
VII.	{ Cases. . { Deaths.	1.39 —	7.30 2.08	0.35 —	0.33 —	5.34 1.67	3.68 0.67	0.63 —	3.14 0.31	3.51 1.28	1.60 0.64	5.43 —	4.22 0.30	0.60 0.30	8.45 0.56	0.85 0.28	1.41 0.28	5.59 0.27	1.07 0.53	1.07 —	5.99 0.44	3.63 0.92	0.86 0.17	
VIII.	{ Cases. . { Deaths.	— —	10.50 1.17	3.50 1.17	— —	7.86 —	3.37 —	2.11 1.06	3.17 —	7.51 —	6.44 1.07	1.01 —	— —	— —	17.05 1.89	— —	3.79 —	7.17 1.77	— —	4.52 0.88	7.72 0.67	4.15 0.17	2.91 0.60	
IX.	{ Cases. . { Deaths.	— —	1.31 0.65	— —	0.63 0.63	6.28 2.51	2.51 —	1.18 0.59	3.55 —	3.60 —	1.20 —	6.24 —	3.97 0.57	1.70 —	5.82 0.53	0.53 —	1.06 —	7.51 1.50	3.00 0.50	2.00 1.00	7.57 0.29	3.18 0.60	1.11 0.32	
X.	{ Cases. . { Deaths.	7.42 —	4.45 —	7.42 2.96	— —	2.85 —	— —	1.34 —	— —	4.09 —	2.72 —	5.15 —	10.30 1.29	— —	8.40 —	4.80 —	— —	4.54 —	2.27 1.13	3.40 1.13	6.54 0.19	4.11 0.35	2.12 0.58	
City.	{ Cases. . { Deaths.	1.42 0.15	6.24 1.89	1.38 0.29	1.88 0.45	5.44 1.08	2.93 0.21	1.18 0.26	3.64 0.69	3.67 0.93	1.37 0.37	3.47 0.09	2.87 0.63	0.63 0.09	5.94 0.91	1.29 0.32	1.20 0.32	3.42 0.42	2.09 0.59	1.75 0.48	4.70 0.36	3.61 0.88	1.34 0.32	

NUISANCES ABATED IN EACH DISTRICT IN 1888.

DISTRICT. Population (estimated).	I. 6,555	II. 6,395	III. 2,479	IV. 4,398	V. 6,874	VI. 1,519	VII. 3,755	VIII. 1,116	IX. 1,997	X. 881	Total 35,969
Bedding used in typhoid fever on premises . .	-	-	1	-	-	-	-	-	-	-	1
Cellar damp	9	4	-	1	2	-	2	-	1	-	9
Cesspool defective . .	1	-	1	-	-	1	-	-	2	-	5
" offensive . . .	1	-	-	-	-	1	-	-	-	-	2
" overflowing . .	-	-	-	-	1	2	-	1	3	-	7
Connections of drainage pipes defective	4	3	-	1	1	-	3	4	-	-	16
Cows kept in basement of house	-	-	-	1	1	-	-	-	-	-	2
Drainage defective . .	10	10	-	3	7	1	6	8	1	-	46
" emptying in cellar	3	1	2	-	3	3	3	2	2	-	19
" emptying on surface	7	1	1	1	3	2	1	1	1	1	19
" not ventilated, . .	4	7	-	1	3	1	1	-	2	-	19
Drain pipe defective . .	2	-	1	-	1	-	-	-	-	-	4
Drying hair, offensive .	-	-	-	1	-	-	-	-	-	-	1
Furnace without cold-air box	-	-	-	-	1	-	-	-	-	-	1
Hennerly offensive . .	-	-	-	-	1	-	-	-	-	-	1
Hens kept in cellar . .	1	-	-	1	-	-	-	-	-	-	2
Hens kept in privy . .	1	-	-	-	-	-	-	-	-	-	1
Manure exposed and offensive	9	1	-	1	4	1	3	1	1	-	21
Offal on land	4	-	-	-	2	-	-	-	-	-	6
Offensive odor in and about dwellings . .	-	3	-	-	2	-	-	-	-	-	5
Opening in drain-pipe in cellar	-	-	-	-	-	-	1	-	-	-	1
Premises filthy	4	1	-	-	11	1	-	-	-	-	17
" untidy	7	2	1	-	-	2	-	-	-	-	12
Privy-vault defective . .	1	2	1	-	1	1	2	-	-	-	8
" full	22	7	2	7	10	5	1	-	-	1	55
" offensive	28	13	-	12	17	6	4	-	2	-	82
Slaughtering, offensive .	-	-	-	-	1	-	-	-	-	-	1
Slops thrown on surface .	-	1	-	2	-	-	-	-	-	-	3
Stable and stable premises filthy and offensive .	2	3	-	-	3	-	4	1	-	-	13
Stagnant water in house cellar	1	3	1	-	1	-	-	-	-	-	6
Stagnant water on surface	10	-	1	-	2	-	3	-	2	-	18
Waste-pipe defective . .	-	1	1	1	-	-	-	-	-	-	3
" not trapped . .	12	13	-	4	-	2	6	2	-	-	39
Water-closet defective . .	3	3	1	-	3	-	-	1	-	-	11
" insufficiently supplied with water .	4	5	-	-	1	-	1	-	1	-	12
Water-closet not supplied with water . . .	2	2	-	-	-	1	-	-	-	-	5
Water-closet offensive .	3	3	-	-	2	1	-	-	3	-	12
Wooden waste-pipes and drains	1	-	-	-	-	-	1	-	-	-	2
Total	156	89	14	37	84	31	42	21	21	2	497

APPROPRIATION FOR HEALTH DEPARTMENT AND EXPENDITURES THEREFROM, 1888.

Appropriation	\$4,500 00
Receipts for permits to keep swine and goats and to collect grease	226 00
Total credit	<u>\$4,726 00</u>

Expenditures : —

For inspector's salary	\$ 962 96
“ collecting ashes	2,326 68
“ “ offal	900 00
“ burying dead animals	67 00
“ vaccine virus	9 00
“ fumigating (sulphur, pans, etc.,)	18 60
“ disinfectants	9 75
“ abating nuisances	7 50
“ care of ash dumps	402 66
“ investigating nuisances	37 03
“ “ cause of nuisance at Bridge Street sewer out- let	10 14
“ analyzing water	10 44
“ property destroyed after Ty- phoid Fever case	25 00
“ distributing notices on collec- tion of ashes	17 50
“ books, stationery and printing	190 95
“ serving notices	2 00
“ carriage hire	22 00
“ rent of post-office box	5 00
Total debit	<u>\$5,024 21</u>
Amount overdrawn	\$298 21

THOMAS M. DURELL, M.D.
J. F. WELLINGTON,
CHAS. H. CRANE.

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REPORT OF THE CITY PHYSICIAN.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 23, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 23, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

To his Honor the Mayor and the City Council.

GENTLEMEN,—I respectfully present my annual report as City Physician. I have made during the year, 1,409 visits; of these 298 were surgical, and 43 were made to persons at the police station. I have viewed the bodies, and have given certificates of the probable cause of death of 6 persons who died unattended by a physician. I have examined 21 persons supposed to be insane, and have given certificates in 14 cases. I have, under the Civil Service, examined 13 applicants for the police force.

Respectfully submitted,

THOS. M. DURELL, M.D.,

City Physician.

Jan. 13, 1889.

REPORT

OF THE

TRUSTEES OF THE PUBLIC LIBRARY.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 23, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 23, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

Jan. 1, 1889.

To the City Council.

The Trustees of the Somerville Public Library take pleasure, in submitting their report for the current year, to state that at no time in its history has this institution for general instruction been so extensively patronized, and, we believe, its usefulness so clearly demonstrated.

The report of the Librarian is herewith transmitted, which contains all necessary information in regard to the daily workings of the library, and its present condition. We would respectfully request that the same be published with the annual reports.

The Trustees do not consider it necessary to make an extended report, as there is no institution in the city with which the public are more familiar than the Public Library.

We have been guided in the performance of the duty intrusted to us, by the idea of making the library popular in its best sense; dividing as judiciously as possible, the money available for new books, so that all classes of readers may be stimulated and improved by the best in every department of literature.

The new catalogue has been printed the present year, and is a great convenience to the many who have occasion to consult it.

In conclusion, we ask with confidence for such generous support from the City Government, as we have uniformly received in the past.

CHAS. S. LINCOLN,
GEO. A. BRUCE,
SANFORD HANSCOM,
WM. H. BRINE,
J. HENRY FLITNER,
CHRISTOPHER E. RYMES,
WM. E. WELD,
JAMES. E. WHITAKER,
CHAS. G. POPE,

} *Trustees.*

LIBRARIAN'S REPORT.

To the Trustees of the Somerville Public Library.

GENTLEMEN, — In submitting my sixteenth annual report of the condition of the library, I can only state, with more emphasis than ever before, the increased number of books asked for, of books read, and of books of reference used. It is pleasant to be able to state that nearly all of the books inquired for during the past year were immediately procured by the committee, who are always glad to know the wants of our readers.

LIBRARY WORK.

This has been a busy year. The catalogue has been completed, and has been in use six months. 1,738 new books have been entered and put in circulation, a card catalogue is well under way, and the shelves are rapidly filling up. We now need the whole of our building for our own use, as there is no more room for the new reference books until some changes are made, and all public documents placed in the upper room. 145 books have been worn out and discarded, and 10,951 covered and repaired. These were principally fiction, as we are trying the experiment of putting into circulation many new books without the paper covers, and find they are generally well used. The delivery of books from the counter is but one part of our numerous duties. The constant overlooking of every book when returned, the replacing of soiled and torn covers, renumbering and repairing of carelessly-handled books, occupy a large share of our time. This has been cheerfully and faithfully performed by the assistants, to whom much credit is due for the excellent condition of the books.

270 books have been bound, including periodicals. One new magazine, "The Historical and Genealogical Register," and one children's paper, "The Youth's Companion," have been added this year.

One ancient and valuable book has been given by Rev. Charles Smith, and one by the author, E. S. Brooks. The "Somerville Citizen" has also been contributed, and we are thankful for continued favors from "Somerville Journal" and "Somerville Sentinel."

ADDITIONS.

Among the books added to our reference library are "History of Ancient Sculpture," "Palestine Illustrated," Turner's "Liber Fluviorum," "English and Greek Lexicon," "Graphic Record," Lacroix's "Eighteenth Century" in France, "England and Wales," illustrated, in four volumes, "Seats and Castles of Scotland," and others. While in the circulating department an unusually large number of excellent books have been added; some of which are "Europe in Storm and Calm," "Ancient Rome in the Light of Recent Discovery," "American Literature," in ten volumes, McCulloch's "Men and Measures," "Face to Face with the Mexicans," Long's "Republican Party," Sheridan's "Personal Memoirs," "Capitals of Spanish America," "Ancient Persia," "Three Cruises of the Coast-Survey Steamer Blake," "Donnelly's Cryptogram," with a large collection of juvenile books, and the most desirable works of fiction.

CIRCULATION.

The library has been open, for the delivery of books, 305 days, and 81,844 books have been delivered. Of these, 80,697 were for "home use," and 1,147 were used here for reference.

The busiest week of the year ended with March 24, in which time 2,011 were delivered for home use. The largest number on any one day was 708 (March 24), and the smallest (July 31) was 100.

This year three books were carelessly destroyed, and two others accidentally spoiled, but all were paid for and replaced.

Two thousand notices have been written and sent out for books overdue, and three were found to be missing from the shelves at the annual examination.

REGISTRATION.

On the 1st of January, 1885, a new registration was commenced; since which time, 8,369 names have been entered and cards supplied. The number in use is constantly changing, some preferring to take out books only in summer, but by far the greater part taking books regularly through the winter months. This year 1,356 names were added.

Our reading-room is generally well filled, and, with a few exceptions, quiet. We have allowed all to avail themselves of its privileges without regard to age; but sometimes are obliged to exclude those who come merely for amusement or talk, and who take the places of people who wish for a quiet room for reading or study. Our reference books are used freely, and we find it difficult to be able to state how many are used in the reference room of which no account can be kept.

An immense amount of reading is now done by some of the youngest readers,—I mean by those under the age of sixteen. These we are always ready to attend to and assist. Cannot more of our teachers interest them in some particular direction, and, now that the taste for reading has been formed, give them subjects to look up, and encourage them to report to them such facts as they have mastered, for the only test whether a book has been read or not is the ability to tell what it contains? It is true that the parents are the ones who should attend to all this; but they are too often only pleased that the time should be so taken up, and find it too much trouble to investigate, or are not competent to decide.

Many teachers now suggest books to their pupils; but I cannot but think that a great deal more might be done in this direction by teachers of the lower grades of the Grammar Schools.

We have the best books of recent travel, and the newest thoughts of great thinkers, as well as the records of the past lives of the great and good of every land in our valuable library,

and it only remains for the reader to take, without money and without price, whatever will best satisfy his wants.

Looking back at the small beginning of the library (less than three thousand books), and comparing it with its present number (15,883), and the delivery of 81,844 in one year, it is plain to see the great success of its establishment.

HARRIET A. ADAMS, *Librarian*.

SOMERVILLE, Jan. 1, 1889.

REPORT
OF THE
COMMITTEE ON HIGHWAYS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 3, 1889.

Ordered to be filed with the city clerk for presentation to the next city council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

Concurred in.

IN COMMON COUNCIL, Jan. 3, 1889.

CHARLES S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

IN COMMITTEE ON HIGHWAYS, Dec. 31, 1888.

To the City Council of Somerville.

The following is respectfully submitted as the final report of this committee for the year ending Dec. 31, 1888:—

HIGHWAYS ACCOUNT.

CREDIT.

Appropriation		\$44,000 00
Receipts and credits:—		
For labor and materials furnished		
prior to Jan. 1, 1888, the bills		
for which remained uncollected		
that day	\$663 00	
rent of dwellings at City		
Farm	\$136 00	
less repairs and water		
rates	10 77	
	<hr/>	125 23
pasturage at Waltham		
Gravel Land for years		
1887 and 1888	\$240 00	
less taxes on said land	117 30	
	<hr/>	122 70
unpaid bill for materials purchased	63 75	
	<hr/>	974 68
Value of materials on hand Jan. 1, 1888		1,122 25
Value of property on hand Jan. 1, 1888		9,541 60
		<hr/>
Total credit		\$55,638 53

DEBIT.

Expenditures : —

For construction of Aldrich Street		\$310 14
construction of Berkeley Street, from School Street to Central Street		499 93
construction of Boston Street		750 28
construction of Buckingham Street		274 22
construction of Irving Street		323 11
construction of Morgan Street		88 26
street crossings		512 27
street signs		98 32
clearing and repairing streets after the laying of horse railroad tracks:		
Highland Avenue, from Cedar Street, easterly	\$613 87	
Somerville Avenue and Elm Street	856 15	
	<hr/>	1,470 02
repairs and improvements of streets, and paving of gutters in connection with the setting of edgestones:		
Berkeley Street, School Street to Central Street, paving	\$390 29	
Bow Street, north side, from Bow Street Place to near Somerville Avenue, paving	32 85	
Cedar and Summer Streets, in front of David Cummings & Co's estate, paving	37 61	
Dartmouth Street, east side, from Broadway to Evergreen Avenue, paving	177 99	
repairs	332 28	
	<hr/>	
<i>Amounts carried forward</i>	\$971 02	\$4,326 55

<i>Amounts brought forward</i> . . .	\$971 02	\$4,326 55
Dartmouth Street, both sides, Evergreen Avenue to Med- ford Street, paving . . .	520 98	
repairs	283 83	
Dane Street, north-west side, from Washington Street to Somerville Avenue, paving . . .	420 98	
repairs	687 77	
Franklin Street, from Frank- lin Avenue to end of old sidewalk, paving . . .	200 80	
repairs	55 81	
Grove Street, west side, from Elm Street to Highland Avenue, paving . . .	159 86	
repairs	175 90	
Mystic Avenue in front of H. S. Atwood's estate, paving . . .	24 13	
Prospect Hill Congregational Society, Bow and Walnut Streets, paving . . .	136 62	
Summer Street in front of Methodist Church, paving . . .	26 86	
Walnut Street in front of G. W. Simpson's estate, paving . . .	31 64	
	<hr/>	3,696 20
cost to City of sidewalks, the bricks and edgestones for which were furnished by the abutters		336 94
ordinary repairs of streets:—		
Broadway from Franklin Street to Cross Street . . .	516 11	
Broadway from Dartmouth Street to Main Street . . .	829 57	
Central Street from Albion Street to Forster Street. . .	735 05	
<i>Amounts carried forward</i> . . .	\$2,080 73	\$8,359 69

<i>Amounts brought forward</i> . . .	\$2,080 73	\$8,359 69
Cedar Street from Highland Avenue to Lowell R. R. . .	49 12	
Cherry Street from Elm Street to Chestnut Street . . .	118 80	
Franklin Street from Perkins Street to Broadway . . .	109 00	
Harvard Street from Summer Street to Beach Street . .	590 63	
Holland Street from Cameron Avenue to Newbury Street .	138 85	
Oak Street from Prospect Street to Bolton Street . .	95 14	
Pearl Street from Crescent Street to Hillside Avenue . . .	502 63	
Prospect Street from Webster Avenue to Cambridge Line .	848 03	
School Street from Berkeley Street to Somerville Avenue	485 17	
Somerville Avenue from Prospect Street to Craigie Street	2,990 99	
Springfield Street from Cambridge Line to Concord Avenue	157 03	
Summer Street from Vinal Avenue to Linden Avenue .	754 80	
Vinal Avenue from Highland Avenue to Pleasant Avenue	191 36	
Walnut Street from Bonair Street to Pearl Street . .	416 05	
Walnut Street from Boston Street to Bow Street. . .	99 12	
Washington Street from Prospect Street to Boston Line .	231 53	
<i>Amounts carried forward</i> . . .	\$9,858 98	\$8,359 69

<i>Amounts brought forward</i>	\$9,858 98	\$8,359 69
Washington Street from Union Square to Dane Street	961 79	
general repairs	10,547 77	
	<hr/>	21 368 54
removing ledge of rock in sidewalk Elm Street at Francesca Avenue		306 13
repairing Broadway (horse R. R. towpath) Marshall Street to brow of hill	90 07	
less portion paid by railroad Co.	45 17	
	<hr/>	44 90
repairs of stone paving		523 88
repairs of brick sidewalks		660 79
removing snow and ice and care of slippery sidewalks		1,208 61
cleaning streets		2,815 40
clearing and repairing streets after the construction of sewers and catch-basins		109 65
constructing storage bins at crusher		1,576 29
planting trees furnished by citizens		160 82
one-half cost of maintaining Middlesex Avenue bridge for the year 1887; the other half being paid by the town of Medford		5,690 14
superintendent's salary		1,500 00
board of superintendent's horses		505 72
rent of superintendent's telephone		39 80
tax on Wakefield gravel land		26 94
tax on Winchester gravel land		10 69
sidewalk assessment on Elm Street school lot		41 81
cost of jury viewing Evergreen Avenue extension, Thurston to Sycamore Street		10 00
re-setting fountain, Union Square		37 28
books, stationery, and printing		54 50
advertising notice of hearing laying out Alston Street (street not laid out)		11 80
		<hr/>
<i>Amount carried forward</i>		\$45,063 38

<i>Amount brought forward</i>	\$45,063 38
advertising proposals, edgestones, and paving stock	4 50
sundry small expenses	51 16
private work, etc., the bills for which remain uncollected	439 91
Value of materials on hand this day	1,328 51
Value of property on hand this day: —	
horses (20)	\$4,450 00
cars and implements used with:	
horses	1,956 50
harnesses and horse clothing	471 60
stable utensils and property	186 30
tools, tool chests, etc.,	257 95
stone crusher, engine and fittings	1,022 25
	<hr/> 8,344 60
Net loss on city teams, tools, property and materials	54 79
	<hr/>
Total debit	\$55,286 85
	<hr/>
Balance unexpended	\$351 68
	<hr/> <hr/>

Labor and materials have also been furnished, for which payment has been made to the City Treasurer, or credit received as follows: — to

Private parties, constructing driveways, sidewalks, etc.,	\$382 69
Boston & Lowell R. R. Co., repairing Willow Bridge approaches	393 94
Fire department account, paving-blocks for engine house driveway	333 90
Miscellaneous account, crushed-stone screenings in City Hall horse-sheds	6 00
Public grounds account, teaming at Broadway Park	39 20
	<hr/>
Total	\$1,155 73

We have also sold

One old horse for	\$75 00
Hay (rowen) from city farm for	30 00
Total	<u>\$105 00</u>

and credited these amounts in the committee's books, to city teams account; the bills having been paid by the purchasers to the City Treasurer.

The profit and loss account on city teams, tools, property, and materials is as follows:—

	DR.
Tools, etc. (depreciation)	\$229 89
Repairs of tools	190 10
Holland-Street ledge	1,064 32
Total	<u>\$1,484 31</u>

	CR.
Gravel	\$307 53
Edgestones and paving stock	158 55
Crushed stone	188 94
City teams	774 50
Total	<u>\$1,429 52</u>

Net excess of cost over charges (see page 264)	<u><u>\$54 79</u></u>
--	-----------------------

The loss at the ledge was caused by the unusual expense of removing snow in January and February, and the fact that the greater part of the stone obtained during the year was taken from the bottom of the ledge, where the work of quarrying, and also of removing the stone, is necessarily the greatest. The price charged for the ledge stone delivered at the crusher was forty-five cents per single tip-cart load, and for ballast delivered on the streets ten cents per load. The actual cost of the stone delivered at the crusher we find to have been about sixty-five cents. 5,221 loads of ledge stone were delivered at the crusher during the year, and about 400 loads of stone for the crusher and 1,000 loads of ballast remain on hand at the ledge.

Crushed stone has been charged to the various jobs of work where it has been used at seventy-five cents per load at the crusher, on the basis of forty-five cents per load for the stone delivered at the crusher to be broken. If the price for the stone to be broken or crushed had been sixty-five cents, which was the cost of the stone delivered from the ledge, the cost of crushed stone ready for teaming to the several pieces of work would have been about ninety-one cents. 7,784 loads were sent from the crusher, and about 400 loads remain on hand.

All the gravel used has been brought from the Waltham land, by the Fitchburg Railroad Company, at a charge of sixty cents per yard for digging, transportation, and loading and unloading the cars. The only additional expense is for screening. The charge for the gravel at the dump, to the several pieces of work, has been seventy cents per load for the greater portion, or 7,725 loads, fifty cents for 168 loads, and one dollar for 494 loads; and for the stones left after screening (1,695 loads), which have been sent to the crusher, forty-five cents per load delivered. The actual cost of the gravel screened appears to have been about sixty-seven cents. No account, however, is made for interest on the value of the gravel land, the assessed value of which, in 1888, was \$8,500. The taxes are a little more than paid by the amount received annually for pasturage.

The balance of profit to the credit of edgestones and paving-stock account is the difference between the credits to the account this year for stock furnished in 1887, and the loss and depreciation of this year.

The charges to the city-teams account are for horses (the amount of \$75 received for an old horse sold being credited to this account), depreciation

\$950 00

Cart and implements used with horses, depreciation

439 50

Repairs of same

425 45

Harnesses and horse clothing, depreciation

179 15

Repairs of same

255 59

Stable utensils and property, depreciation

15 23

Stable expenses and repairs

1,246 78

Grain and feed

1,310 70

Hay and straw	558 56
Horse-shoeing	508 69
Horse-doctoring and medicine	90 92
Cutting hay at city farm (the crop being used in the city stables, except \$30 worth sold and credited to this account)	159 53
Total	<u>\$6,140 10</u>

The credits to city-teams account for earnings, at \$1.40 per day for each horse, amounted to \$6,914.60, showing a profit of \$774.50, as before stated. The actual cost of maintenance, therefore, was equal to about \$1.24 for each horse.

A pair of old horses has been exchanged for a new pair, and one old horse has been sold, making the present number of horses in the department twenty. The total number in the last report of this committee should have been twenty-one instead of twenty, as the old horse which has since been sold was omitted in taking stock.

SIDEWALKS ACCOUNT.

CR.

Appropriation	\$4,500 00
Credit: Advertising paid for in 1887	11 20
Total credit	<u>\$4,511 20</u>

DR.

Expenditures: —

For Berkeley-Street sidewalks	\$819 24
Bow-Street sidewalk	261 09
Dane-Street sidewalk	761 29
Dartmouth-Street sidewalk, east side, Broadway to Evergreen Avenue	450 08
Dartmouth - Street sidewalks, both sides, Evergreen Avenue to Medford Street	1,019 88
<i>Amount carried forward</i>	<u>\$3,311 58</u>

<i>Amount brought forward</i> . . .	\$3,311 58	
Franklin-Street sidewalk . . .	363 29	
Glen-Street sidewalks, Broadway to Webster Street . . .	931 44	
Glen-Street sidewalks, Flint to Pearl Street . . .	504 99	
Grove-Street sidewalk . . .	502 01	
Vinal-Avenue sidewalk . . .	992 02	
Wallace-Street sidewalk . . .	782 00	
	<hr/>	
Total cost of sidewalks . . .	\$7,387 33	
Less assessments . . .	3,693 69	
	<hr/>	
Net cost to city . . .		\$3,693 64
Advertising notices of hearing for sidewalk in School Street . . .	\$10 00	
sidewalk in Otis Street . . .	9 40	
	<hr/>	19 40
Abatement of assessment . . .		1 95
Sidewalk order-blanks . . .		4 25
		<hr/>
Total debit . . .		\$3,719 24
		<hr/>
Balance unexpended . . .		\$791 96
		<hr/>

NEW STREETS AND SIDEWALKS.

Two private ways have been laid out and accepted as public streets during the year, viz: —

Boston Street, from Washington Street to Walnut Street, and Buckingham Street, from Beacon Street to Dimick Street.

The former, as laid out by the city, is forty-five feet wide from Washington Street to the easterly line of Prospect Hill Avenue, and forty feet from that point to Walnut Street, and the width of Buckingham Street is forty feet.

Boston Street has been graded and gravelled from Prospect Hill Avenue westerly to a point near Mr. A. T. Kidder's easterly line, and the gutters have been paved and edgestones set at the four corners of Greenville Street.

Buckingham Street has been graded and gravelled.

Streets accepted in previous years have been constructed as follows: —

Aldrich Street, accepted in 1887, graded, ballasted, and gravelled, between Gilman and Pearl Streets.

Berkeley Street, accepted in 1886, graded and gravelled, from School Street to Mr. R. P. Benton's line, the balance of the street having been constructed in 1887.

Irving Street, accepted in 1886, graded, and partially macadamized, from Holland Street to the brow of the hill.

Morgan Street, accepted in 1885, graded and gravelled.

Eleven sidewalks have been constructed, one-half the cost of which was assessed upon the abutting estates, the city's part being charged to sidewalks account, and eight sections of sidewalks have been constructed at the expense of highways account and the cost of the bricks and edgestones used charged to the abutters.

HORSE RAILROADS.

No extensions of horse railroad tracks have been made during the year; but the West End Street Railway Company has taken up its old rails in Somerville Avenue and Elm Street, from Union Square to Cedar Street, and substituted the Providence Improved Girder rail.

STORAGE BINS AT CRUSHER.

For the purpose of saving expense in handling the crushed stone, storage bins have been built at the crusher during the year, at a cost of \$1,576.29.

Heretofore the stone passing from the crusher had dropped from the chute upon the ground, and had to be shovelled into the carts, either to be carried to another part of the grounds to be piled up until wanted on the streets, or to be teamed directly to the streets. The height of the crusher above the ground made it easy to provide improved facilities. The crushed stone now passes directly from the crusher into the bins by means of a belt, and the carts are loaded by simply drawing a slide and allowing the stone to run out.

Instead of taking the time of four men and a horse some twelve minutes, the loading of a cart now consumes the time of but one man and a horse one minute. But little saving has been made to the department the past year in this way, as nearly all

the work at the crusher was done before the bins were finished. The capacity of the bins is about two hundred tons, or two days' crushing.

STREET SIGNS.

The discontinuance of gas lights, where electric lights had been established, caused the removal of the glass street signs which were in the lanterns. In place of these we have purchased metallic signs, with white enamel letters, and attached them to the lantern frames.

REPAIRS.

The cost of miscellaneous repairs has been unusually large during the year, owing to the continuous rains and the open, mild winter.

The streets have been badly washed, and they were terribly broken up in December, when we had a succession of very warm days, during which the frost came out of the ground as it commonly does in spring.

Constant vigilance and work were required in this department to keep the streets safe, and in as good condition as was possible under the circumstances, and large quantities of fine stone from the crusher were spread on the unpaved sidewalks.

SCHEDULES.

Particulars of the work performed may be found in the following schedules:

STREETS ACCEPTED.

NAME.	From	To	Length in Feet.
Boston Street . .	Walnut Street . .	Washington St. .	1850
Buckingham Street	Beacon Street . .	Dimick Street . .	300

STREETS IMPROVED.

STREET.	From	To	Improvement.	Ft.
Aldrich . .	Runey St. . . .	Pearl St.	{ Graded, ballasted, and gravelled. }	300
Berkeley . .	School St. . . .	R. P. Benton's land	Graded and gravelled .	1100
Boston . . .	Prospect Hill Ave.	{ Near Kidder's } { es'ly line }	" "	800
Broadway . .	Dartmouth St. .	Main St.	Re-macadamized	700
Broadway . .	Franklin St. . .	Cross St.	" "	1100
Buckingham .	Beacon St. . . .	Dimick St.	Graded and gravelled .	280
Cedar	Highland Ave. .	Lowell R. R. . . .	Graded and macadamized	700
Central . . .	Albion St. . . .	Forster St.	Gravelled	1450
Cherry . . .	Elm St.	Chestnut St. . . .	Re-macadamized	280
Dane	Washington St. .	Somerville Ave. .	{ Graded, macadamized, } { and gravelled }	1400
Dartmouth . .	Broadway	Evergreen Ave. . .	Macadamized and grav'ld	700
Dartmouth . .	Evergreen Ave. .	Medford St. . . .	Graded and gravelled . .	900
Franklin . . .	Franklin Ave. . .	Northeastwardly .	Macadamized and grav'ld	220
Franklin . . .	Perkins St. . . .	Broadway	{ Re-macadamized and } { gravelled. }	600
Grove	Highland Ave. .	Elm St.	Macadamized	400
Harvard . . .	Summer St. . . .	Beach St.	Gravelled	720
Highland Ave.	Cedar St.	Eastwardly	Re-graded and macadam'd	450
Holland . . .	Cameron Ave. . .	Newbury St. . . .	Re-macadamized	700
Irving	Holland St. . . .	Brow of Hill . . .	Macadamized	900
Oak	Prospect St. . .	Bolton St.	Gravelled	320
Pearl	Crescent St. . .	Hillside Ave. . . .	Macadamized and grav'ld	1650
Prospect . . .	Webster Ave. . .	Cambridge line . .	{ Re-macadamized and } { gravelled }	1000
School	Berkeley St. . .	Somerville Ave. . .	Gravelled	1380
Somerville Av.	Prospect St. . .	Craigie St.	{ Re-macadamized and } { gravelled }	5400
Springfield .	Cambridge line .	Concord Ave. . . .	{ Re-macadamized and } { gravelled }	800
Summer . . .	Vinal Ave. . . .	Linden Ave. . . .	Gravelled	4700
Vinal Ave. . .	Highland Ave. .	Pleasant Ave. . . .	" "	400
Walnut	Boston St. . . .	Bow St.	" "	1100
Walnut	Bonair St. . . .	Pearl St.	{ Re-macadamized and } { gravelled }	770
Washington .	Prospect St. . .	Boston St.	{ Re-macadamized and } { gravelled }	850
Washington .	Union Square . .	Dane St.	Gravelled	2250

SIDEWALKS CONSTRUCTED WHERE THE MATERIALS AND LABOR WERE FURNISHED BY THE CITY, AND ONE HALF OF THE COST WAS ASSESSED UPON THE ABUTTING ESTATES.

STREET.	From	To	Feet of Edge- stones.	Yards of Brick.	Cost.
Berkeley, both sides }	School Street. .	R. P. Benton's land }	1,375.09	—	\$819 24
Bow.	Bow St. Place .	Near Somer- ville Ave. }	148.90	132.09	261 09
Dane	Washington St.	Somerville Ave.	1,275.01	—	761 29
Dartmouth, east side }	Broadway . . .	Evergreen Ave.	657.11	—	450 08
Dartmouth, both sides }	Evergreen Ave.	Medford Street.	1,553.06	—	1,019 88
Franklin . . .	Franklin Ave. .	End of old side- walk. }	222.09	172.31	363 29

SIDEWALKS CONSTRUCTED, ETC. — *Concluded.*

STREET.	From	To	Feet of Edge- stones.	Yards of Brick.	Cost.
Glen	Flint Street . .	Pearl Street . .	—	432.28	504 99
Glen	Broadway . . .	Webster Street.	—	930.26	931 44
Grove, westerly side } Vinal Av., north- westerly side } Wallace	Elm Street. . .	Highland Ave. .	390.03	258.67	502 01
	Highland Ave. .	Summer Street.	—	1,129.37	992 02
	Broadway . . .	Holland Street.	—	886.18	782 00
Totals,			5,621.29	3,941.16	\$7,387 33

SIDEWALKS CONSTRUCTED WHERE THE EDGESTONES AND BRICKS WERE
FURNISHED BY THE ABUTTERS.

For	Street.	Feet of Edg'stones	Yards of Brick.
H. S. Atwood	Mystic Avenue . .	50.4	48.2
David Cummings & Co. . .	Cedar and Summer.	97.7	28.2
Charles Drouet	Summer.	—	38.2
First Methodist Episcopal Ch.	Bow	99.2	—
Jere. McCarty.	Walnut	—	20.7
D. L. McGregor	Walnut and Bonair.	—	24.2
Prosp. Hill Congregat'n'l Soc.	Walnut and Bow .	146.8	—
G. W. Simpson	Walnut	90.3	24.8
Totals		484.4	184.3

DRIVEWAYS CONSTRUCTED (AT EXPENSE OF ABUTTERS).

For	Street.
L. B. Angier	Broadway
F. W. Leavitt	Somerville Avenue
M. O. Royce	Bonair
H. D. Runey	Cross
W. F. Wade	Cedar

DRIVEWAYS DISCONTINUED (AT EXPENSE OF ABUTTERS).

For	Street.
Harrison Aldrich	Franklin
Augusta S. Vinal	Walnut

CROSSINGS CONSTRUCTED.

Central Street, in line with northerly sidewalk of Berkeley Street.

Central Street, across end of Albion Street.

Marshall Street, across end of Stickney Avenue.

Medford Street, northerly side, across Dartmouth Street.

Somerville Avenue, at easterly side of Beacon Street bridge.

Somerville Avenue in line with easterly sidewalk of Hawkins Street.

Walnut Street, across end of Hillside Park.

Warren Avenue, across end of Sanborn Avenue.

CULVERTS CONSTRUCTED.

Cameron Avenue, pipe, under street, near Cambridge line, 1.

Highland Avenue, pipe, under street, at Eastman Place, 1.

Medford Street, wood, under sidewalk, at Lowell Railroad Bridge, 1.

Medford Street, wood, under sidewalk, near Cambridge line, 1.

Mystic Avenue, stone, under street, near Medford line, 1.

Mystic Avenue, stone, under street, near Chauncey Avenue, 1.

DANGER SIGNS ERECTED.

Broadway, at City Ledge.

Chandler Street, at Broadway.

Garfield Avenue, near Broadway.

Richdale Avenue, at Sycamore Street.

STREET SIGNS ERECTED (wooden).

Broadway.

Porter Street.

Garfield Avenue.

Union Street.

Irving Street.

Wallace Street.

STREET SIGNS PROVIDED (metallic, on lantern frames).

Beacon Street, 1.	Marshall Street, 1.
Belmont Street, 1.	Medford Street, 3.
Boston Street, 1.	Mt. Vernon Street, 1.
Bow Street, 2.	Morrison Street, 1.
Broadway, 4.	Park Avenue, 1.
Buckingham Street, 1.	Pearl Street, 5.
Cedar Street, 1.	Pearl Street Place, 1.
Central Street, 3.	Perkins Street, 1.
Concord Avenue, 2.	Prospect Street, 1.
Cross Street, 1.	School Street, 2.
Elm Street, 4.	Somerville Avenue, 4.
Fitchburg Street, 1.	Summer Street, 2.
Franklin Street, 4.	Summit Avenue, 1.
Frost Avenue, 1.	Temple Street, 1.
Glen Street, 1.	Wallace Street, 1.
Grand View Avenue, 1.	Walnut Street, 3.
Grove Street, 2.	Warren Avenue, 1.
Holland Street, 1.	Webster Avenue, 2.
Irving Street, 1.	Wesley Park, 1.
Linwood Street, 2.	Winslow Avenue, 1.
Main Street, 1.	

EDGESTONES AND PAVING.

Lineal feet of edgestones set (including 800 feet reset), 6,905.33; square yards of brick paving laid (including 600 yards relaid), 4,725.19; square yards of stone paving laid (including 360 yards relaid), 2,949.

For the Committee,

NATHAN H. REED, *Chairman.*
GEO. I. VINCENT, *Clerk.*

REPORT OF THE COMMITTEE ON SEWERS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 3, 1889.

Ordered to be filed with the city clerk for presentation to the next city council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

Concurred in.

IN COMMON COUNCIL, Jan. 3, 1889.

CHARLES S. ROBERTSON, *Clerk*.

CITY OF SOMERVILLE.

IN COMMITTEE ON SEWERS, Dec. 31, 1888.

To the Board of Aldermen of Somerville.

The committee on sewers presents the following final report for the year 1888 :—

SEWERS ACCOUNT.

CREDIT.

Appropriation	\$9,500 00
Receipts and credits :—	
For catch-basin curbs in sidewalks:—	
received credit from Sidewalks	
account	\$14 37
fee for drainage of Asylum build-	
ings into Fitchburg Street sewer	50 00
labor and materials furnished in	
1887, the bills for which re-	
mained uncollected Jan. 1, 1888	147 04
	<hr/>
Value of materials on hand Jan. 1, 1888	211 41
Value of tools and property Jan. 1, 1888	233 67
	407 70
	<hr/>
Total credit	\$10,352 78

DEBIT.

Expenditures :—

For seven sewers, as per accompany-	
ing table	\$9,906 10
less assessments	8,744 67
cost to city	<hr/>
	1,161 43
	<hr/>
<i>Amount carried forward</i>	\$1,161 43

<i>Amount brought forward</i>	\$1,161 43
For man-hole School Street at Landers Street .	40 00
twenty-two catch basins (average \$82.25)	1,809 44
five-ninths cost of removing deposit from mouth of Bridge Street sewer	1,741 28
repairing sewers and drains	365 40
flushing sewers and filling catch-basins with water	370 55
cleaning sewers	946 93
examining sewers	45 07
repairing catch-basins	112 57
moving catch-basin, Marshall Street at Stick- ney Avenue	54 84
changing lines and grades of catch-basins .	41 77
cleaning catch-basins	2,058 13
cleaning mouths of catch-basins	205 86
examining catch-basins	5 63
repairing man-holes	8 81
changing lines and grades of man-holes .	147 72
cleaning man-holes	33 12
inspecting house drains	271 25
inspecting sewers built by abutters in Ames, Bartlett, Bennett, Bradley, Carleton, Cook, Dana, Delaware, Grant, Jay, Hersey, Lan- ders, Mansfield, Robinson, Rossmon and Thorndike Streets, and Francesca, Jenny Lind, Kensington, Richdale, and Winthrop Avenues, and on land of Timothy Tufts .	537 88
unpaid bills of 1887	7 50
books, stationery, and printing	66 60
repairing tools and property	42 35
arranging tools and property	5 63
sundry small expenses	33 80
abatement of sewer assessment to Rebecca and Philip Nutting on common sewer in Elm Street	13 30
<i>Amount carried forward</i>	<hr/> \$10,126 86

<i>Amount brought forward</i>	\$10,126 86
For advertising hearings on proposed sewers in Madison and Montrose Streets and Kent Court	22 25
labor and materials furnished, the bills for which are to be presented for collection in 1889	86 59
private work, the bills for which remain un- collected	3 60
Depreciation in value of tools, property and ma- terials	146 99
Value of materials on hand Dec. 31, 1888 . . .	229 54
Value of tools and property on hand Dec. 31, 1888 (including purchases during the year, \$131.55)	394 14
Total debit	<hr/> \$11,009 97
Amount overdrawn	<hr/> \$657 19

In addition to the above statement, labor and materials have been furnished, for which credit or payment has been received as follows:—

To A. W. Bryne, puddling sewer trenches, Highland Avenue and Cherry Street	\$10 26
J. G. Sculley, ballast from Elm Street sewer, near Chapel Street, allowed in cost of said sewer	22 20
	<hr/> \$32 46

The sewer in Wheatland Street being obstructed, about seventy feet of it was opened and cleaned, and the sewer was covered with plank for the winter. It was found to have been crushed out of shape, and a part of the top had fallen in. It should be relaid in the spring.

The easterly side of the Waverly Street sewer plank outlet has been rebuilt.

The following is a table of the sewers laid by the city during the year:

SEWERS BUILT IN 1888.

STREET.	From	To	Length in Feet.	Total Cost.	Assessment.	Cost to City.
Cedar.	End of old sewer . . .	Albion Street	3121.0	\$5,801 82	\$5,721 15	\$80 67
Albion	Cedar Street	Central Street				
Cherry	End of old sewer . . .	Southwesterly	182.2	165 42	122 70	42 72
Elm	End of old sewer . . .	Kidder Avenue	475.7	1,598 85	768 52	830 33
Franklin	Perkins Street	Southwesterly	50.7	40 90	40 13	0 77
Greenville	Boston Street	Near High Street . . .	252.3	341 63	325 27	16 36
Highland Ave.	Grove Street	Near Willow Avenue . .	1,008.1	1843 28	1654 26	189 02
Thurston	End of old sewer . . .	Near Broadway	128.0	114 20	112 64	1 56
. TOTAL,			\$5,218.0	\$9,906 10	\$8,744 67	\$1,161 43

For the Committee,

CHAS. L. NORTH, *Chairman.*

GEO. I. VINCENT, *Clerk.*

REPORT OF THE CITY ENGINEER.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 28, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 28, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

OFFICE OF CITY ENGINEER, SOMERVILLE, Feb. 15, 1889.

To his Honor the Mayor and the City Council.

In compliance with City Ordinance 9, Section 9, the following report of the City Engineer is respectfully submitted:—

CITY ENGINEER'S DEPARTMENT.

The number of persons regularly employed in this department during the year 1888 was five. Additional help has been employed as occasion required.

The expenses of the department have been as follows:

Salary of the City Engineer, including the care and maintenance of horse and carriage	\$2,200 00
Salary of assistants	1,832 53
Instruments and supplies	345 72
Car fares	17 42
Total	<hr/> \$4,395 70

SEWERS.

Five thousand and thirty-five linear feet, or ninety-five one hundredths of a mile of pipe sewers, have been built by the City, and about eight thousand one hundred linear feet, or one and five-tenths miles have been built by private parties, during the past year.

The cost of sewers built by the City was \$9,906.10. Of this amount \$8,744.67 has been assessed on abutters, and \$1,161.43 has been assumed by the City.

The construction of private Sewers has been carried on under the superintendence of inspectors in the employ of the City. The cost of inspection was \$502.88.

The annual charge for dredging the Bridge-Street Outlet was made this year. The amount expended was \$3,134.30: of this amount five ninths, or \$1,741.28, has been paid by the City of Somerville, the remaining four ninths by the City of Cambridge.

The demands made on the sewer department during the coming year will probably be larger than for some years past. The following items are some that have been brought to my attention during the past year.

THE WHEATLAND STREET SEWER.

The Wheatland Street Sewer has its outlet on the north-east line of Mystic Avenue. It is a thirty-inch brick sewer, and was built in the year 1875, under a contract with S. H. Tarbell, at a cost of about \$2 per linear foot. From the south-west line of Mystic Avenue to a point about four hundred feet south-westerly the sewer was built on filling. The average depth of the filling was two and one half feet below the bottom of the sewer. It is not known what was done to prevent settlement on that part of the sewer laid on filling; but from excavation made it is evident that no support was given to the sides of the sewer at the spring of the arch, and the stone ballast with which the trench was filled was so heavy that the sides of the sewer were forced outward and the arch, relieved of its support by the sides, fell in. After heavy rains complaints were made that the cellars of houses in the Wheatland-Street district were flooded. An examination of the Wheatland-Street Sewer was immediately begun, and in that part of the sewer laid on filling, a dam was located about two hundred feet south-west of Mystic Avenue. Excavation was begun at this point and the arch of the sewer removed. On removing the dam it was found that the sides of the sewer had been forced out about twelve inches, and the arch correspondingly flattened. Further excavation indicated that in some places the arch had fallen in. About 75 feet of the arch has been removed, the trench has been thoroughly braced and covered over with planks at the grade of the street. Further excavations must be made before the length of sewer to be rebuilt can be definitely stated. The work of rebuilding should be commenced as soon as the 15th of April.

The cost of opening and cleaning this section of the sewer to January 1st, 1889, was \$147.43.

The wooden box drain at the outlet of the Wheatland-Street sewer is broken and out of place, and will need extensive repairs in the spring.

WINTHROP AVENUE SEWER.

The Winthrop Avenue sewer now ends at Mystic Avenue. From Mystic Avenue the sewage is continued in an open ditch, across private lands, and about in the direction of the extension of Winthrop Avenue, to Middlesex Avenue. Passing through a culvert under Middlesex Avenue, it is continued in an open ditch to the Mystic River.

The open ditch between Mystic Avenue and Middlesex Avenue is located on private lands over which the City has never acquired a right of way. As this ditch is one of the main outlets of the sewerage system, it is highly proper that so important an outlet should be on land over which the City has complete control. The location of the open ditch should be abandoned, and the Winthrop Avenue sewer extended to Middlesex Avenue through a proposed extension of Winthrop Avenue. A taking of land could then be made which would be satisfactory to the owners of the property.

The extension of Winthrop Avenue would be a great public improvement, because it would open a shorter route from Somerville to Malden *via* Middlesex Avenue.

An examination has recently been made of the culvert under Middlesex Avenue at the end of the open ditch. The lower end of the culvert was found to have been undermined, and the bottom of the culvert forced from its place, to such an extent that at high tide, water is forced through the bottom of the culvert, and the sewers in Winthrop Avenue and Wheatland Street are filled by the tide. The result of this is, that, in time of high tide, the sewers, being filled by tide-water, are overcharged by the addition of rain-water from the streets to such an extent that the contents of the sewers is forced through the house drains into the cellars. The condition of this culvert is such that it seems imperative that it should be rebuilt this season.

The south-westerly or inlet end of *this culvert under Middlesex Avenue is seven and one-half inches above the end of the Winthrop Avenue sewer at Mystic Avenue.* This difference in eleva-

tion is effective in retaining a certain depth of slack water in the open ditch, and causes an accumulation of deposit in the Winthrop Avenue sewer, which, at the present time, has accumulated to a depth of fifteen inches. This deposit must necessarily continue to increase from year to year. If this culvert under Middlesex Avenue were rebuilt at a lower grade, the trouble above referred to would be avoided.

The benefit which would result from an increased scour in the Winthrop Avenue sewer to be obtained by lowering this culvert is a strong argument in favor of rebuilding.

From these facts already mentioned, viz.: That the open ditch is on private land; that by the proposed extension of Winthrop Avenue, the City would obtain a right of way for the main northerly outlet of the sewerage system, and that by the proposed extension of the Winthrop-Avenue sewer an increased scour, and, consequently, an increased discharge, would be obtained in the sewer; that the proposed extension of Winthrop Avenue would open a shorter route between Somerville and Malden via Middlesex Avenue; that the culvert under Middlesex Avenue is unsafe; that it should be lowered, as it is seven and one-half inches above the brick sewer in Winthrop Avenue, and causes a deposit to form in the said brick sewer; that the tide flows back through the culvert under Middlesex Avenue into the connecting sewers, and into the house drains in time of heavy rain. From these facts it is evident that the culvert under Middlesex Avenue should be rebuilt, and the Winthrop Avenue sewer extended to Middlesex Avenue.

I would, therefore, recommend that the City proceed to take land for the extension of Winthrop Avenue, and that the Winthrop-Avenue sewer be extended to the northeasterly line of Middlesex Avenue, said sewer to be provided with suitable tide gates.

EAST SOMERVILLE SEWERAGE.

A great deal of complaint has been made by the inhabitants of that part of East Somerville drained by the Cross-Street sewer, between Pearl Street and Broadway, of the continual flooding of cellars in time of heavy rain.

A thorough examination of the Cross-Street sewer should be

made, having special reference to the grade of the present sewer, and also to the amount of deposit which may have accumulated.

The Broadway sewer, from Cross Street to Winthrop Avenue, should be similarly examined, and man-holes built at connections with lateral sewers, and at changes in grade and alignment. By this means the sewer can be examined at any time, obstructions removed, and defects remedied. There are no man-holes on the Broadway sewer between Franklin Street and Winthrop Avenue.

I would recommend that the Committee on Sewers be instructed to examine the sewerage system of East Somerville, and report what defects exist, and what improvements can be made in the present system of sewers. Also that man-holes be built on Cross Street and Broadway at such points as the City Engineer shall deem necessary.

EXAMINATION OF SEWERS.

An examination has been made of sewers that have man-holes built upon them. Deposits were found in the Wheatland-Street sewer and its laterals; the Dane-Street sewer from Somerville Avenue to Washington Street; the Kent-Street sewer; the Washington-Street sewer from the Fitchburg Railroad to Hawkins Street, and from Franklin to Waverley Street; the Cross-Street sewer from Pearl Street to Broadway; the Winthrop-Avenue sewer; and the Holland-Street sewer from Irving Street to the railroad. In addition to the above, pipe sewers in West Somerville and in the Lowell and Vernon Street district, in Allen, Linden, Merriam, South, Ward, Bedford, Chestnut, Hamlet, Bradley, Central, Mount Pleasant, Lincoln, George, and Vine Streets, need attention, and are flushed during the year as occasion requires.

CLEANING SEWERS.

Sewers were cleaned in Bolton and Oak Streets; Washington Street from the Fitchburg Railroad to Somerville Avenue; Somerville Avenue from Union Square to Poplar Street; and Marshall Street from Pearl Street five hundred and fifty feet northeasterly. The outlets at North Union Street, Winthrop Avenue, Wheatland Street, and Waverley Street were cleaned

several times during the year. In addition, the usual amount of flushing in pipe sewers was done.

The cost of cleaning sewers for the year 1888 was \$946.93. The cost of flushing pipe sewers was \$370.55.

CATCH BASINS.

Twenty-two catch basins have been built during the year at a cost of \$1,809.44, and an average cost of \$82.25. One catch basin has been removed and re-located at a cost of \$54.84.

The cost of cleaning catch basins was \$2,058.13; an increase over the cost of doing the same work in 1888 of thirty-four per cent, due to the large amount of rainfall during the year.

WHEATLAND STREET OUTLET.

The outlet of the Wheatland-Street sewer is through an open ditch from Wheatland Street to Winthrop Avenue. At several places along the west side of the ditch, it has been sheeted with two inch spruce, to prevent the banks from slipping into the ditch. About five hundred and sixteen linear feet of ditch has been sheeted at a cost of \$360.16.

WAVERLEY STREET OUTLET.

The wooden outlet which forms the continuation of the Waverley-Street sewer has been thoroughly repaired. A larger portion of one side and the top were removed and replaced with new stock. All old surfaces which were exposed by the repairs and all new material were thoroughly coated with coal tar. The cost of the repairs was \$108.87.

BRIDGE STREET OUTLET.

The amount and cost of work done at the Bridge Street outlet is as follows:—

Boynton Brothers, dredging, 4,520 cu. yards at \$.60	\$2,712 00
Cambridge Water Works (flushing)	92 80
Teaming	2 50
Labor	327 00
Total	<u>\$3,134 30</u>

Of this amount five-ninths, \$1,741.28, was paid by the city of Somerville.

PRIVATE DRAINS.

Four hundred and twenty-four permits have been issued during the past year for laying and repairing private drains. An accurate record has been kept of the new locations and the changes in old drains.

INSPECTION OF HOUSE DRAINS.

May 7, 1888, Alfred Pitts was appointed inspector of house drains and of drain layers' work. All drains laid since that date have been inspected and laid under his direction.

PROPOSED SEWER

IN THE LOCATION OF THE BOSTON AND LOWELL RAILROAD.

I would respectfully call the attention of the City Council to the necessity of building a trunk sewer in the location of the Boston and Lowell railroad from Washington Street to some point west of Cedar Street.

A sewer built in the railroad location would provide for the drainage of a certain section of the city which it would not be practical to take into our present trunk sewers. It would relieve the trunk sewer in Elm and Beacon Streets of the drainage from a large area, and would be of great benefit to the sewer in Medford and Pearl Streets by relieving it of the drainage of Winter Hill from Marshall Street north-westerly. The area that could be drained by the proposed sewer is about four hundred and fifty acres.

It would also provide means for disposing of surface water on the railroad location, and would be of great service to the road.

I am certain that the railroad company would co-operate with the city in the building of such a sewer.

I would respectfully recommend that the Committee on Sewers be requested to investigate this subject and report to the City Council.

A NEW LOCATION FOR THE TOOL HOUSE.

The sewer department has under its charge about forty-two miles of public sewers. The care and maintenance of these sewers requires the employment of a considerable number of men

and teams. Its yard for the storage of materials and tools is far too small for the needs of the department, and larger quarters should be provided at an early date.

I would respectfully recommend that a yard and buildings be provided and teams be purchased for the sole use of the department, and the City Engineer be instructed to do all the work needed to be done in connection with the laying of sewers and drains, and building catch basins, and the necessary repairs on the highways in connection with such work as the sewer department is required to perform. By this means the highway department would be relieved of a considerable amount of work, and the sewer department made directly responsible for the care and maintenance of sewers and house drains, and for what repairs are needed on the highways in connection with the laying and repairing of sewers and drains.

NORTH METROPOLITAN SEWERAGE SYSTEM.

The Massachusetts State Board of Health has submitted to the Legislature of 1889, a report recommending a system of intercepting sewers for the Mystic River valley and a portion of the Charles River valley. It is proposed to provide for the cities of Cambridge, Somerville, Malden, Chelsea, Woburn, and East Boston, and the towns of Arlington, Medford, Winchester, Melrose, and Winthrop, by a system of intercepting sewers, but for house drainage only and excluding surface water; the sewage to be conveyed to Deer Island and discharged into the bay, the surface water to be allowed to flow into the streams. That the city of Somerville would receive an immediate benefit commensurate with the expense cannot be admitted. The only apparent benefit to be derived is that there will always be a certain movement in the sewage at all stages of the tide; whereas, now our sewers must act as reservoirs and store the sewage between tides.

It can be said that at some future time when our city is more densely populated, and the pollution of the Mystic River becomes more apparent, then this question of the disposal of sewage would become a public health measure, and such a system as is recommended would then become a necessity.

The apportionment of the cost of the system does not come within the power of the State Board of Health, and no statement has been made as to what this scheme would cost the City of Somerville; but it has been estimated that the cost would be about \$500,000. Whether the City of Somerville ought to be obliged to make such an addition to its debt is a question.

A table showing the location, size, cost per foot, assessment, and cost to the City of sewers built in 1888, may be found in Appendix A.

HIGHWAYS.

About ten thousand two hundred and eighty-two linear feet of edgestone and sidewalk have been laid, for which lines and grades have been given. The cost of this work has been estimated, and returns, with the owners' names, have been made to the Board of Aldermen for assessment.

Street lines have been furnished, and grades given for buildings and fences, when called for.

STREETS ACCEPTED.

Two streets have been accepted. Plans showing location and profile have been submitted by the abutters, and have been revised and deposited with the City Clerk.

The street lines on these streets have been verified from the plans, and permanent points fixed at deflections in the street lines and at street intersections.

A table, showing location, width, and length of streets accepted in 1888, will be found in Appendix B.

STREETS NUMBERED.

Four streets have been numbered. Surveys have been made, plans prepared, and notices issued to owners of buildings on streets numbered. Many new houses have been located and numbers assigned them.

SIDEWALK IMPROVEMENTS.

In Appendix C. will be found a table, showing sidewalk improvements completed in 1888.

LOCATION AND LENGTH OF PUBLIC AND PRIVATE STREETS.

A table, showing the location and length of public and private streets, will be found in Appendix C.

SURVEY OF THE CITY.

But little progress has been made on the City Survey, owing to the large amount of routine work required by the Sewer, Highway, and Public Grounds Departments. About fifty acres of the survey of East Somerville has been revised, the measurements of fences checked, and new houses located. About twenty-five acres have been surveyed in the Albion Street District.

BRIDGES.

Bridges on the Location of the Boston & Lowell Railroad.

WASHINGTON STREET BRIDGE.

This is a substantial plate girder bridge and crosses over Washington Street. It is in good condition. The highway approaches are practically in the same condition as in January, 1888. The head room remains the same, and the north-west sidewalk has not been graded.

CROSS STREET BRIDGE.

This bridge is in a dangerous condition. The floor timbers are not deep enough to give the floor its necessary stiffness. The temporary wooden blocking under the ends of the floor timbers, put there in 1887, at the time the bridge was raised, was not intended to be permanent, and should be replaced by masonry. The abutments are out of line and unsafe.

WALNUT STREET BRIDGE.

This bridge is in a fair condition. The floor timbers rest on wooden blocking, and should be made safe by substituting masonry for this temporary blocking.

MEDFORD STREET BRIDGE.

This bridge is in good condition.

SCHOOL STREET BRIDGE.

This bridge is in fair condition. The sidewalk on the southerly side of the bridge is in need of repairs.

SYCAMORE STREET BRIDGE.

The floor beams are decayed and should be renewed.

CENTRAL STREET BRIDGE.

The stone arch at this bridge is in fair condition. The repairs made on the sidewalks have put them in good condition.

CEDAR STREET BRIDGE.

The old bridge and abutments have been torn down, and a substantial iron bridge with block stone masonry abutments are now under construction.

BROADWAY BRIDGE.

The floor timbers are not deep enough, and the floor, for this reason, lacks stiffness. This bridge should be rebuilt, if possible, during the next season.

Bridges over the Fitchburg Railroad.

PROSPECT STREET BRIDGE.

The old bridge and the southerly abutment have been removed, and a new abutment is now under construction four feet south of the old location. The new bridge will be of the same style as the old one.

The Washington Street and the Beacon Street bridges are in good condition.

Miscellaneous Bridges.

BROADWAY BRIDGE OVER ALEWIFE BROOK.

The stone arch is in good condition. The retaining walls need pointing, and the joints need pinning in some places.

BOSTON AVENUE BRIDGE OVER MYSTIC RIVER.

One-half of this bridge is supported by the City of Somerville. The fence rails are decayed, and should be renewed. The bracing under the floor is somewhat decayed, but will not need to be renewed before another year.

MIDDLESEX AVENUE BRIDGE OVER MYSTIC RIVER.

One-half of this bridge is supported by the City of Somerville. The superstructure was rebuilt in 1887, and the bridge is in good condition.

PUBLIC GROUNDS.

CENTRAL HILL PARK IMPROVEMENT.

Work was commenced on the improvement of Central-Hill Park, April 23, 1888. The work done during the past season consists in laying 1,702.68 square yards of coal tar and asphalt concrete walks, with necessary grading and sodding for the borders. About three acres on the top of the hill have been covered with loam, dressed, ploughed, harrowed, and seeded, and are well grown to grass. The following is a statement of the cost of the work done during the year 1888:—

157.44 cords manure	\$440 99
537 cubic yards loam	489 05
10,585 square feet sod	264 62
1,702.68 square yards asphalt walks	1,872 95
9.5 bushels grass seed	38 00
Labor	1,592 08
Tools	35 11
Repairing tools	14 78
Fencing, lumber, paint stock	27 65
Building steps at Battery, and at Walnut and Medford Street entrances	139 20
Total	<u>\$4,914 43</u>

BROADWAY PARK.

Early in the spring of 1888, a careful examination was made of the condition of Broadway Park.

The walks in the vicinity of the pond were found to be at least twelve inches below the curbing around the pond. The settlement of the walks prevented the surface water from flowing into the pond, and the grass has been flooded over large areas. In these low places, the frost has thrown the curbing out of line, and the grass has been winter killed.

Estimates were made of the cost of filling the walks to the grade of the curbing, and sodding where the grass had been destroyed.

Proposals were submitted for furnishing and delivering the gravel for filling the walks. It was, however, decided that the amount appropriated for public grounds should be used for

the improvement of Central-Hill Park, and nothing was done on Broadway Park.

I would recommend that the work on Broadway Park contemplated in 1888, be commenced as early the coming year as practicable, and that an appropriation be made for that purpose.

CITY HALL AND LIBRARY GROUNDS.

Early in April, the City Hall and Library grounds were top dressed with loam, the bare places seeded, and the entire grounds rolled with a heavy roller. Fences were erected at the front corners of the library building to protect the grass, and a paved gutter was laid on one side of the driveway.

The cost of the work done was as follows : —

Labor, top dressing with loam, seeding, and rolling .	\$40 01
Grass seed	16 00
Labor, care of lawn for the season	18 38
Paving gutter, 71.1 square yards at \$2.60	184 86
Repairing tools	1 23
Labor, top dressing with manure	20 99
Manure	82 40
Labor and materials, fence at library	23 52
Total	<u>\$387.39</u>

HIGH SCHOOL GROUNDS.

The lawn in front and on the north-west side of the High-School building was top dressed with manure at the following cost : —

Labor and dressing	\$54 25
Care of lawn for the season	20 00
Total cost of care of grounds	<u>\$74 25</u>

WATER-WORKS.

Lines and grades for laying water pipes have been given when called for by the Superintendent. All pipes, gates, and hydrants laid during the year have been accurately located and recorded. The plans showing the distribution have been revised and corrected to Jan. 1, 1889.

HORACE L. EATON,
City Engineer

APPENDIX A.

TABULAR STATEMENT OF SEWERS BUILT IN 1888.

LOCATION.			CONSTRUCTION.							COST.			
Name of Street.	From	To	Built by	Materials.	Size in inches.	Man-holes.	Inlets.	Length in feet.	Average cut.	Aver. cost per foot.	Total Cost.	Assess-ment.	Cost to City.
Ames	Bartlett St.	Southeasterly	Charles Linehan	Akron pipe	8	1	21	447.0	8.6	*	—	—	—
Bartlett	Vernon St..	near Medford St.	Charles Linehan	"	8	4	1	34	768.5	9.0	—	—	—
Bennett and Court	end of old sewer.	near Prospect St.	Charles A. Mongan	"	10	—	—	16	318.0	3.5	—	—	—
Bradley	Veazie St.	Northeasterly	Richard Falvey.	"	12	—	1	18	403.6	3.5	—	—	—
Carlton.	Somerville Ave.	Southwesterly	Charles A. Mongan	"	8	—	9	191.5	6.6	*	—	—	—
Cedar	end of old sewer.	Albion St.	Richard Falvey.	"	15	3	—	29	3,121.0	15.4	1.86 \$5,801.82	\$5,721.15	\$80.67
and (1)			Dennis O'Connell.	"	{ 12, 10	—	—	—	—	—	—	—	—
Albion	Cedar St.	near Central St.	Andrew W. Bryne.	"	& 8	9	—	169	7.7	—	—	—	—
Cherry	end of old sewer.	Southwesterly	Andrew W. Bryne.	"	10	—	1	4	182.2	8.8	165.42	122.70	42.72
Dana	Pearl St.	Everett Ave.	Maurice Buttiner.	"	8	—	1	8	304.0	6.7	—	—	—
Delaware	Aldrich St.	Easterly	Maurice Buttiner.	"	10	1	—	14	339.5	4.5	—	—	—
Elm (2)	end of old sewer.	Kidder Ave.	Christopher Burke	"	12	3	—	33	475.7	9.1	1,598.85	768.52	836.33
Francesca Ave.	Elm St.	Easterly	Charles Linehan	"	10	1	—	7	243.8	8.6	—	—	—
Franklin	Perkins St.	Southwesterly	Christopher Burke	"	8	—	1	1	50.7	8.6	40.90	40.13	0.77
Grant	Sewall St.	Southwesterly	Maurice Buttiner.	"	10	—	1	10	187.7	8.6	—	—	—
Greenville	Boston St.	near High St.	Dennis Ryan.	"	10	1	—	10	252.3	10.5	341.63	325.27	16.36
Hersey	Berkeley St.	Northeasterly	Dennis Ryan.	"	8	—	1	3	160.0	8.0	—	—	—
Highland Ave.	Grove St.	near Willow Ave.	Andrew W. Bryne	"	{ 15, 12	5	—	52	1,008.1	10.9	1,843.28	1,654.26	189.02
Jay	Holland St.	Southwesterly	William A. Muzzey	"	& 10	—	—	6	189.0	8.6	—	—	—
Jenny Lind Ave. Ext.	Medford St.	Northeasterly	Andrew W. Bryne.	"	8	—	3	3	155.1	6.5	—	—	—
Knapp	School St.	Westerly	Dennis Ryan.	"	10	—	3	3	220.0	7.7	—	—	—
Landers	School St.	Westerly	Dennis Ryan.	"	8	1	—	3	220.0	7.7	—	—	—
Mansfield.	Somerville Ave.	near Wash'gton St.	Richard Falvey.	"	8	1	—	3	722.8	8.5	—	—	—
Richdale Ave.	end of old sewer.	near Sycamore St.	Andrew W. Bryne.	"	12 & 10	3	—	36	722.8	8.5	—	—	—
Robinson	Bartlett St.	Southeasterly	Charles Linehan	"	12	—	3	3	72.0	7.2	—	—	—
Rossmore	Somerville Ave.	near Wash'gton St.	Richard Falvey.	"	8	1	1	24	522.0	10.3	—	—	—
Thorndike	Holland St.	Southwesterly	William A. Muzzey	"	12 & 10	2	—	22	504.0	8.7	—	—	—
				"	8	—	2	2	142.0	8.4	—	—	—

Thurston	end of old sewer.	near Broadway.	Maurice Buttiner.	Akron pipe	10	—	—	10	128.0	8.0	0.89	114.20	112.64	1.56
Winthrop Ave.	brick sewer . . .	Blakeley Ave. . .	Robert H.	"	15	1	—	2	—	10.2	*	—	—	—
Blakeley Ave.	Winthrop Ave. . .	Kensington Ave. .	McDowell.	"	12	1	—	6	612.5	8.2	*	—	—	—
Kensington Ave.	Blakeley Ave. . .	Southwesterly . .	"	"	8	—	1	22	—	7.3	*	—	—	—
Wyatt and	Cook St.	North'y & South'y	Chas. A. Mongan	"	10	1	—	6	489.0	3.4	*	—	—	—
Cook.	Wyatt St.	Marion St. . . .	"	"	10	—	—	12	—	2.1	*	—	—	—
New Street through	Elm St.	near Summer St.	Andrew W. Bryne.	"	12	8	10	3	—	9.3	*	—	—	—
Tufts Est.	Total length of	sewers built by	city	"	—	—	—	—	—	—	—	—	—	—
	"	"	private parties.	"	—	—	—	—	—	—	—	—	—	—
					5	2	18	0	5,218.0	.	.	\$8,906.10	\$8,741.67	\$4,161.43
					7	9	49	0	7,949.0	.	.	.	.	.

(1) 113.3 cubic yards of rock. (2) 345 cubic yards of rock. * Built by private parties.

Total length of sewers built by city previous to Jan. 1, 1888 213,734.7
 " " " during the year 1888 5,218.0
 Total length of public sewers built by city Jan. 1, 1889 218,952.7

APPENDIX B.

STREETS ACCEPTED IN 1888.

NAME OF STREET.	FROM	TO	WIDTH IN FEET.	LENGTH IN FEET.
Boston . .	Washington Street	Walnut Street . .	40	1,880
Buckingham	Beacon Street .	Dimick Street . .	40	290

APPENDIX C.

SIDEWALKS.

STREET.	SIDE.	FROM	TO	MATERIALS.	Approx. length of walk in ft.	COST.
Berkeley . . .	Both . .	School Street . .	Northwesterly . .	Gravel and Edgestones . .	1,381	\$828.10
Bow . . .	North . .	Bow Street Place . .	Westerly . .	Bricks and Edgestones . .	167	261.09
Dane . . .	Northwest	Somerville Avenue . .	Washington Street	Gravel and Edgestones . .	1,208	761.29
Dartmouth . .	Southeast .	Broadway . . .	Evergreen Avenue	Gravel and Edgestones . .	641	450.08
Dartmouth . .	Both . .	Evergreen Avenue . .	Medford Street . .	Gravel and Edgestones . .	1,508	1,019.88
Franklin . . .	Southeast .	Franklin Avenue . .	Northeasterly . .	Bricks and Edgestones . .	219	363.29
Glen . . .	Both . .	Pearl Street . . .	Flint Street . .	Bricks	642	504.99
Glen . . .	Both . .	Broadway . . .	Webster Street . .	Bricks	1,364	931.44
Grove . . .	Northwest	Highland Avenue . .	Elm Street . .	Bricks and Edgestones . .	387	502.01
Vinal Avenue . .	Northwest	Highland Avenue . .	Summer Street . .	Bricks	1,421	992.02
Wallace . . .	Southeast .	Holland Street . .	Broadway . . .	Bricks	1,344	782.00
Totals . . .	. . .	. . . . .	. . . . .	. . . . .	10,282	\$7,396.19

The Board of Aldermen assessed one-half the cost on the abutters.

APPENDIX D.

TABLE SHOWING THE LOCATION, LENGTH, AND WIDTH OF PUBLIC AND PRIVATE STREETS.

STREET.	From	To	Public or Private.	Width in Feet.	LENGTH.	
					Public.	Private.
Adams . .	Broadway .	Medford St. . .	Public	40	900	-
Adrian . .	Marion St. .	Joseph St. . .	Private	40	-	530
Albion . .	Central St. .	Cedar St. . .	Private	about 35	-	2,740
Albion . .	Broadway .	Medford Line .	Private	50	-	100
Aldersey .	Walnut St. .	Vinal Ave. . .	Public	40	508	-
Aldrich .	Pearl St. . .	B. & L. R. R. .	Public	40	611	-
Alfred . .	Broadway .	Medford Line .	Private	50	-	50
Allen . .	Somerville Ave.	Charlestown St.	Private	25	-	680
Allen Ct. .	Park St. . .	Northwesterly .	Private	20	-	150
Alpine . .	Cedar St. . .	Southeasterly .	Private	30	-	670
Alston . .	Cross St. . .	Shawmut Pl. . .	Private	40	-	420
Ames . .	Bartlett St. .	Robinson St. .	Private	40	-	515
Appleton .	Lowell St. .	Lawrence St. .	Private	35	-	480
Appleton .	Willow Ave. .	Morrison St. .	Public	40	750	-
Appleton .	Appleton St.	Liberty Ave. .	Private	40	-	120
Arlington .	Franklin St. .	Lincoln St. . .	Public	40	440	-
Arnold* . .	Morrison St.	Broadway . . .	Private	40	-	1,690
Ashland .	Summer St. .	Chestnut St. .	Private	30	-	470
Asylum Ave.	Washington St.	McLean Asylum .	Private	about 30	-	2,000
Auburn Ave.	Cross St. . .	B. & L. R. R. .	Private	30	-	500
Austin . .	Broadway .	Mystic Ave. . .	Public	40	680	-
Autumn . .	Broadway .	Bonair St. . .	Private	20	-	420
Avon . .	School St. .	Northwesterly .	Private	40	-	700
Avon Pl. .	Cross St. . .	B. & L. R. R. .	Private	25	-	150
Barnett . .	North St. . .	Southeasterly . .	Private	40	-	670
Bartlett . .	Vernon St. .	Medford St. . .	Private	40	-	820
Bartlett . .	Washington St.	Asylum grounds .	Private	20	-	200
Beach Ave. .	Webster Ave. .	Columbia St. . .	Private	about 20	-	200
Beacon . .	Cambridge Line	Somerville Ave. .	Public	66	6,100	-
Bean's Ct. .	Cutter St. .	Southeasterly . .	Private	16	-	100
Bedford . .	South St. . .	Cambridge Line .	Private	30	-	160
Beech . .	Somerville Ave.	Spring St. . .	Public	40	800	-
Belmont . .	Somerville Ave.	Summer St. . .	Public	40	1,230	-
Belmont . .	Summer St. .	Highland Ave. .	Private	40	-	960
Belmont Pl.	Belmont St. .	Southeasterly . .	Private	25	-	175
Benedict . .	Union St. . .	Austin St. . .	Public	40	600	-
Benedict Ave.	Broadway .	Benedict St. . .	Private	20	-	200
Bennett . .	Prospect St. .	Bennett Ct. . .	Private	25 & 40	-	400
Bennett Ct. .	Bennett St. .	Prospect St. . .	Private	10	-	100
Benton Ave. .	Summer St. .	Highland Ave. .	Private	40	-	925
Berkeley . .	School St. .	Central St. . .	Public	40	1,340	-
Bigelow . .	Boston St. .	Munroe St. . .	Private	40	-	203
Billingham*	Broadway .	Williams St. . .	Private	40	-	568
Bishop's Pl.	Glen St. . .	Easterly . . .	Private	10	-	75
Blakeley Ave.	Winthrop Ave.	Cross St. . .	Private	40	-	630
Bleachery Ct.	Somerville Ave.	Fitchburg R. R. .	Private	30	-	450
Bolton . .	Oak St. . .	Houghton St. .	Private	40	-	500
Bonair . .	Cross St. . .	Walnut St. . .	Public	40	1,470	-
Bond . .	Broadway .	Jaques St. . .	Public	40	640	-
Bonner Ave. .	Washington St.	Columbus Ave. .	Public	40	450	-
Boston . .	Washington St.	Walnut St. . .	Public	40	1,880	-
Boston Ave. .	Medford Line .	Medford Line . .	Public	60	910	-
Bow . .	Union Sq. . .	Somerville Ave. .	Public	50 & 60	1,100	-
Bow St. Pl. .	Bow St. . .	Northwesterly . .	Private	40	-	300

* Proposed.

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Bradford Ave.	School Street.	Southeasterly .	Private	40	-	150
Bradley . . .	Pearl Street .	Northeasterly .	Private	40	-	800
Brastow Ave .	Lowell Street	Porter Street .	Private	40	-	660
Brick-yard Lane	Prospect Street	Webster Avenue	Public	25	470	-
Broadway . . .	Charlestown Line	Arlington Line .	Public	60 & 200	17,000	-
Broadway Place	Broadway . .	Southwesterly .	Private	22	-	250
Brook	Glen Street .	Cross Street . .	Public	40	500	-
Brooks	Main Street .	Northeasterly .	Private	40	-	400
Buckingham .	Beacon Street	Dimick Street .	Public	40	300	-
Calvin	Washington St.	Beacon Street .	Private	40	-	750
Cambria	Central Street	Northwesterly .	Private	40	-	300
Cameron Ave .	Holland Street	Cambridge Line	Private	60	-	1,000
Carlton	Somerville Ave.	Lake Street . .	Private	40	-	300
Cedar	Elm Street . .	Broadway	Public	40	4,150	-
*Cedar Avenue	Cedar Street .	Linden Avenue	Private	22	-	290
Cedar Street Pl.	Murdock Street	Southwesterly .	Private	20	-	220
Central	Somerville Ave.	Broadway	Public	33, 40, 45	4,700	-
Centre	Albion Street	B. & L. R.R. . .	Private	35	-	200
Chandler . . .	Park Avenue .	Broadway	Private	40	-	1,200
Chapel	Elm Street . .	Chandler Street	Public	40	273	-
Chapel Court .	Sycamore Street	Northwesterly .	Private	12	-	130
Charles	Washington St.	Asylum grounds	Private	30	-	200
Charlestown .	Malloy Court .	Allen Street . .	Private	15	-	400
Chauncey Ave.	Broadway . . .	Mystic Avenue .	Public	50	1,320	-
Cherry	Elm Street . .	Highland Avenue	Public	45	1,450	-
Chester	Elm Street . .	Cambridge Line	Public	40	850	-
Chester Avenue	Medford Street	Angle	Public	abo't 22	220	-
Chester Avenue	Angle	Cross Street . .	Private	20	-	445
Chester Place .	Chester Street	Northwesterly .	Private	40	-	200
Chestnut . . .	Cedar Street .	Cherry Street . .	Private	35	-	400
Chestnut . . .	Poplar Street .	Southeasterly .	Private	40	-	540
Chestnut Court	Harvard Street	Easterly & west'ly	Private	35	-	400
Church	Summer Street	Somerville Ave.	Public	40	600	-
Church	Somerville Ave.	Lake Street . . .	Private	40	-	300
Church St. Place	Church Street	Northwesterly .	Private	25	-	170
Claremont . .	Holland Street	Cambridge Line	Private	40	-	540
Clarendon Ave.	Broadway . . .	Cambridge Line	Private	40	-	300
Clark	Newton Street	Northwesterly .	Private	35	-	450
Clifton	Morrison Street	Arlington B. R.R.	Private	40	-	220
Clyde	Cedar Street .	Murdock Street	Private	30	-	600
College Avenue	Broadway . . .	Medford Line .	Public	50	1,700	-
Columbia . . .	Glass House Ct.	Cambridge Line	Private	40	-	550
Columbia Court	Columbia Street	Webster Avenue	Private	9	-	150
Columbus Ave.	Land of Clark	Walnut Street .	Public	40	1,000	-
Concord Avenue	Prospect Street	Leon Street . .	Public	40	1,500	-
Concord Avenue	Leon Street .	Beacon Street .	Private	30 & 40	-	470
Congress Place	Linwood Street	Southwesterly .	Private	16	-	200
Conlon Court .	Columbia Street	Easterly	Private	20	-	200
Conwell	Highland Ave.	Near Porter . . .	Private	35	-	364
Conwell Avenue	Curtis Street .	Westerly	Private	40	-	600
Cook	Wyatt Street .	Marion Street .	Private	40	-	275
Cooney	Beacon Street	Line Street . . .	Private	26	-	220
Cottage Avenue	Russell Street	Chester Street .	Public	40	500	-
Cottage Place .	Washington St.	Northwesterly .	Private	abo't 11	-	150
Craigie	Somerville Ave.	Summer Street .	Public	50	1,250	-
Crescent . . .	Washington St.	Pearl Street . .	Private	30 to 38	-	650
Crocker	Highland Ave.	Crown Street . .	Private	40	-	530
Cross	Mystic Avenue	Medford Street .	Public	45	3,750	-
Crown	Porter Street .	Lowell Street . .	Private	30	-	700
Curtis	Broadway . . .	Medford Line .	Public	40	2,300	-
Cutter	Broadway . . .	Webster Street .	Public	40	740	-
Cutter Avenue	Summer Street	Highland Avenue	Private	40	-	450
Cypress	Morrison Street	Orange Street .	Private	40	-	950

* Name changed from Cedar Street Place.

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Dale	Morrison Street	Orange Street .	Private	40	-	1,275
Dana	Bonair Street .	Everett Avenue.	Public	40	415	-
Dana	Everett Ave.	Pearl Street . .	Private	40	-	280
Dane	Somerville Ave.	Washington St.	Public	40	1,270	-
Dane Court . .	Dane Street . .	Easterly	Private	30	-	600
Dartmouth . .	Medford Street	Broadway	Public	40	1,450	-
Day	Elm Street . . .	Cambridge Line	Public	40	940	-
Delaware . . .	Aldrich Street	Pearl Street . . .	Private	40	-	450
Derby	Temple Street	Wheatland Street	Private	40	-	1,032
Dexter	Broadway	Medford Line . .	Private	50	-	25
Dickinson . . .	Springfield St.	Beacon Street . .	Private	40	-	650
Dimick	Concord Ave.	Calvin Street . .	Private	40	-	860
Distillhouse .	South Street . .	Cambridge Line	Private	35	-	150
Dix Place . . .	Linwood Street	Southwesterly .	Private	10	-	100
Dover	Elm Street . . .	Cambridge Line	Public	40	940	-
Durham	Beacon Street	Hanson Street . .	Private	40	-	450
Earle	South Street . .	Fitchburg R.R.	Private	30	-	500
Earle	Broadway	Southwesterly .	Private	30	-	300
Eastman Place	Highland Ave.	Southwesterly .	Private	40	-	300
Eliot	Vine Street . . .	Park Street . . .	Public	40	260	-
Ellsworth . . .	Cross Street . .	Rush Street . . .	Public	40	210	-
Elm	Somerville Ave.	Medford Line . .	Public	60+	7,700	-
Elm Court . . .	Villa Avenue . .	Northwesterly .	Private	18	-	70
Elm Place . . .	Harvard Street	Easterly & west'y	Private	30	-	400
Elnwood	Holland Street	Cambridge Line	Private	40	-	970
Emerson	Everett Street	Newton Street . .	Private	30	-	170
Emery	Fitchburg R.R.	South Street . . .	Private	30	-	530
Endicott Avenue	Broadway	Southwesterly .	Private	40	-	800
Essex	Medford Street	Richdale Avenue	Private	40	-	200
Everett	Webster Ave.	Newton Street . .	Private	30	-	350
Everett Avenue	Cross Street . .	Dana Street . . .	Public	40	800	-
Evergreen Ave.	Marshall Street	Sycamore Street	Public	40	1,320	-
Evergreen Sq.	Porter Street . .	Southeasterly . .	Private	8	-	200
Fairlee	Cherry Street	Northwesterly .	Private	30	-	150
Fairmount Ave.	Curtis Street . .	Northwesterly .	Private	40	-	700
Fanning Avenue	Willow Avenue	Lexington Ave.	Private	50	-	1,150
Farragut Ave .	Broadway	Southwesterly .	Private	40	-	840
Fisk Avenue . .	Hinckley Street	Lowell Street . .	Private	20 & 25	-	460
Fitchburg . . .	Linwood Street	B. & L. R.R. . . .	Private	40	-	400
Flint	Franklin Street	Cross Street . . .	Public	40	1,020	-
Florence	Washington St.	Perkins Street . .	Public	40	1,280	-
Forest	Beacon Street	Cambridge Line	Public	40	150	-
Forster	Sycamore Street	Central Street . .	Private	30	-	430
Fountain Ave.	Cross Street . .	Glen Street . . .	Private	30	-	550
Francesca Ave.	Elm Street . . .	Liberty Avenue	Private	40	-	740
Franklin	Broadway	Washington St.	Public	40+	2,230	-
Franklin Ave .	Washington St.	Franklin Street	Private	20	-	500
Franklin Court	Somerville Ave.	B. & L. R.R. . . .	Private	-	-	200
Franklin Place	Franklin Street	Southeasterly . .	Private	15	-	100
Fremont	Main Street . . .	Northeasterly . .	Private	40	-	600
Fremont Ave . .	Parker Street	Easterly & west'y	Private	30	-	235
Frost Avenue .	Somerville Ave.	Dane Street . . .	Private	35	-	550
Garden Court .	Somerville Ave.	Fitchburg R.R.	Private	25	-	370
Garfield Avenue	Broadway	Mystic Avenue . .	Private	40	-	1,150
Garrison Avenue	Broadway	Southwesterly . .	Private	40	-	850
George	Broadway	Southwesterly . .	Private	40	-	350
George	Lincoln Street	Mt. Vernon Street	Private	40	-	450
Gibbens	Central Street	Benton Avenue . .	Private	40	-	400
Giles Place . .	Walnut Street	Northwesterly .	Private	32.71	-	168
Gill's Court . .	Franklin Street	Westerly	Private	10	-	100
Gilman	Cross Street . .	Walnut Street . .	Public	40	1,430	-
Glass House Ct.	Webster Ave . .	Easterly	Private	40	-	200
Glen	Broadway	Tufts Street . . .	Public	40	2,300	-
Gorham	Holland Street	Howard Street . .	Private	40	-	-760

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Grand View Av.	Walnut Street	Vinal Avenue .	Public	40	470	-
Granite . . .	Somerville Ave	Osgood Street .	Private	40	-	400
Grant	Broadway . .	Mystic Avenue .	Private	40	-	1,350
Greenville . .	Medford Street	High Street . .	Private	40	-	650
Grove	Elm Street . .	Arlington B. R.R.	Public	40	600	-
Grove	Arlington B.R.R.	Morrison Street	Private	40	-	400
Hadley Court .	Franklin Street	Westerly . . .	Private	20	-	150
Hall	Cedar Street .	Cherry Street .	Private	30	-	350
Hall Avenue . .	Elm Street . .	Liberty Avenue .	Private	40	-	910
Hamlet	Highland Ave.	Southwesterly .	Private	30	-	400
Hammond . . .	Dickinson St .	Concord Avenue	Private	40	-	273
Hanson	Washington St.	Vine Street . .	Private	35	-	750
Harding	South Street .	Cambridge Line	Private	30	-	100
Harris	Beacon Street	Cambridge Line	Private	35	-	150
Harrison	Ivaloo Street .	Mondamin Ct. .	Private	40	-	330
Harvard	Summer Street	Beech Street . .	Public	40	650	-
Hathorn	Broadway . .	Arlington Street	Public	40	330	-
Hawkins	Somerville Ave.	Washington St.	Private	40	-	330
Hawthorne . . .	Willow Avenue	Northwesterly .	Private	30	-	700
Heath	Temple Street	Brooks Street .	Private	45	-	1,800
Hennessey Ct.	Medford Street	Fisk Avenue . .	Private	20	-	250
Henry Avenue	Highland Ave.	Lexington Ave.	Private	40	-	290
Herbert	Chester Street	Day Street . . .	Public	40	360	-
Hersey	Berkeley Street	Oxford Street .	Private	40	-	230
High	Boston Street	Munroe Street .	Private	50	-	1,100
Highland Ave.	Medford Street	Davis Square . .	Public	60	9,100	-
Hillside Avenue	Pearl Street .	Southwesterly .	Private	30	-	150
Hillside Park .	Walnut Street	Northwesterly .	Private	40	-	245
Hinckley	Broadway . .	Lawrence Street	Private	30	-	430
Hodgdon Place	Dane Court . .	Northeasterly .	Private	about 20	-	150
Holland	Davis Square .	Broadway . . .	Public	60	2,650	-
Holt's Avenue	Oak Street . .	Southeasterly .	Private	10	-	100
Homer Square	Bonner Avenue	Northwesterly .	Private	30+	-	200
Horace	South Street .	Fitchburg R.R.	Private	30	-	510
Houghton . . .	Prospect Street	Springfield Street	Private	40	-	750
Howard	Thorndike St.	Northwesterly .	Private	40	-	560
Howe	Marshall Street	School Street .	Private	40	-	470
Hudson	Cedar Street .	Central Street .	Private	40	-	2,700
Hunting	South Street .	Cambridge Line	Private	30	-	125
Irving	Holland Street	Broadway . . .	Public	40	1,180	-
Ivaloo	Beacon Street	Park	Public	40	650	-
Jackson	Medford Street	Maple Street .	Private	30	-	150
James	Broadway . .	Holland Street .	Private	40	-	775
James	Pearl Street .	Veazie Street .	Private	40	-	300
Jaques	Chauncey Ave.	Bond Street . .	Public	40 & 45	2,250	-
Jasper	Pearl Street .	Gilman Street .	Private	40	-	300
Jay	Holland Street	Howard Street .	Private	40	-	525
Jenny Lind Ave.	Vernon Street	Medford Street	Public	40	910	-
Jenny Lind Ave.	Medford Street	Broadway . . .	Private	40	-	590
Jerome	Sycamore Street	Montrose Street	Private	10 & 20	-	280
Joseph	Newton Street	Northwesterly .	Private	40	-	380
Joy	Washington St.	Poplar Street .	Private	30	-	1,150
Joy Street Place	Joy Street . .	Southwesterly .	Private	30	-	175
Kensington Ave	Broadway . .	Blakeley Avenue	Private	40	-	440
Kent	Somerville Ave.	Beacon Street .	Private	25 & 40	-	740
Kent Court . .	Kent Street . .	Northerly . . .	Private	about 25	-	420
Kidder Avenue	Elm Street . .	Liberty Avenue	Private	40	-	610
Kingman Court	Washington St.	Fitchburg R.R.	Private	25	-	400
Knapp	School Street	Granite Street .	Private	40	-	350
Lake	Hawkins Street	Church Street .	Private	40	-	850

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Lamson Court	Linwood Street	Northeasterly .	Private	20	-	300
Landers . . .	School Street .	Westerly . . .	Private	40	-	280
Laurel . . .	Somerville Ave.	Summer Street .	Public	40	940	-
Lawrence . .	Hinckley Street	B. & L. R.R. .	Private	35	-	650
Lee	Medford Street	Richdale Ave. .	Private	40	-	385
Leland . . .	Washington St.	Northeasterly .	Private	40	-	250
Leon	Concord Ave.	Dickinson St. .	Private	40	-	150
Lesley Avenue	Highland Ave.	Lexington Ave.	Private	40	-	333
Leslie Place .	Highland Ave.	Easterly . . .	Private	12	-	75
Lexington Ave	Willow Avenue	Southeasterly .	Private	50	-	665
Liberty Avenue	Appleton Street	Northeasterly .	Private	40	-	700
Lincoln . . .	Broadway . .	Perkins Street .	Public	40	550	-
Linden . . .	Somerville Ave.	Charlestown St.	Private	30	-	600
Linden Avenue	Elm Street . .	Summer Street .	Public	45	1,050	-
Linden Avenue	Summer Street	Northeasterly .	Private	45	-	250
Linden Place .	Linden Avenue	Northwesterly .	Private	20	-	160
Line	Washington St.	Cambridge Line	Private	33	-	1,750
Linehan Court	Linwood Street	Chestnut Street	Private	about 15	-	200
Linwood . . .	Somerville Ave.	Washington St.	Public	50	2,050	-
Linwood Place	Linwood Street	Southwesterly .	Private	about 12	-	150
London . . .	Linwood Street	B. & L. R.R. .	Private	40	-	340
Loring	Somerville Ave.	Northeasterly .	Private	40	-	400
Lowell	Somerville Ave.	Crown Street .	Private	33+	-	1,600
Lowell	B. & L. R.R. .	Medford Street .	Private	33+	-	1,150
Madison . . .	School Street .	Sycamore St. .	Private	40	-	850
Main	Broadway . .	Medford Line .	Public	50	950	-
Malloy Court .	Somerville Ave.	Southwesterly .	Private	40	-	100
Mansfield . .	Somerville Ave.	Washington St.	Private	40	-	730
Maple	Poplar Street .	Jackson Street .	Private	30	-	470
Maple Avenue	School Street	Southeasterly .	Private	40	-	300
Maple Place .	White Street .	Southeasterly .	Private	20	-	200
Marion	Concord Ave.	Adrian Street .	Private	40	-	170
Marrett Place	Walnut Street	Northwesterly .	Private	40	-	195
Marshall . . .	Broadway . .	Pearl Street . .	Public	40	1,650	-
Mason Avenue	Orchard Street	Cambridge Line	Private	35	-	220
May Place . .	Hawkins Street	Easterly . . .	Private	12	-	100
Mecham . . .	Orchard Street	Cambridge Line	Public	40	100	-
Mecham . . .	Arlington B.R.R.	Orchard Street .	Private	40	-	600
Mecham . . .	Mt. Vernon Ave.	Medford Line .	Private	40	-	800
Mead	Cameron Ave.	Moore Street .	Private	40	-	340
Medford . . .	Cambridge Line	Medford Line .	Public	50 & 55	10,100	-
Melrose . . .	Mystic Avenue	Middlesex Ave.	Private	50	-	2,200
Melvin	Bonair Street	Northeasterly .	Private	35	-	150
Merriam . . .	Somerville Ave.	Charlestown St.	Private	30	-	500
Middlesex Ave.	Mystic Avenue	Medford Line .	Public	60	3,400	-
Milk Street Pl.	Somerville Ave.	Southwesterly .	Private	about 30	-	100
Miller	Sacramento St.	Northwesterly .	Private	33	-	350
Mills	Walnut Street	Sargent Avenue	Private	40	-	500
Miner	Vernon Street	Ames Street . .	Private	40	-	245
Mondamin Court	Ivaloo Street .	Harrison St. . .	Private	25	-	250
Montgomery Av.	Broadway . .	Wellington Av.	Private	40	-	265
Montrose . .	School Street .	Sycamore St. .	Private	40	-	850
Moore	Holland Street	Mead Street . .	Private	40	-	1,200
Morgan . . .	Beacon Street	Park Street . .	Public	40	-	250
Morrison . . .	Willow Avenue	Elm Street . .	Public	40	1,700	-
*Morrison . .	Willow Avenue	Cedar Street . .	Private	40	-	1,300
Mortimer Place	Marshall Street	Southeasterly .	Private	20	-	150
Mossland . .	Somerville Ave.	Elm Street . .	Public	40	350	-
Mountain Ave.	Linden Avenue	Porter Street .	Private	22	-	310
Mousal Place .	North Union St.	B. & M. R.R. .	Private	20	-	200
Mt. Pleasant .	Broadway . .	Perkins Street .	Public	33	570	-
Mt. Pleasant Ct.	Broadway . .	Southwesterly .	Private	40	-	250
Mt. Pleasant Av.	Curtis Street .	Northwesterly .	Private	40	-	700
Mt. Vernon . .	Washington St.	Broadway . . .	Public	40 & 50	1,640	-

* Proposed.

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Mt. Vernon Ave.	Main Street .	Mecham Street .	Private	50	-	800
Munroe . . .	Walnut Street	High Street . .	Private	40	-	400
Murdock . . .	Cedar Street .	Clyde Street . .	Private	30	-	900
Murray . . .	Washington St.	Southerly . . .	Private	30	-	250
Myrtle . . .	Washington St.	Perkins Street .	Public	40	1,400	-
Myrtle Court .	Myrtle Street .	Easterly . . .	Private	10	-	100
Mystic . . .	Washington St.	Somerville Ave.	Public	40	360	-
Mystic . . .	Benedict Street	Mystic Avenue .	Private	40	-	330
Mystic Avenue	Charlest'n Line	Medford Line .	Public	60 & 66	7,250	-
Nashua . . .	Appleton Street	B. & L. R.R. . .	Private	35	-	640
Nevada Avenue	Village Street	Hanson Street .	Private	20	-	200
Newberne . .	Appleton Street	Morrison Street	Private	40	-	280
Newbury . . .	Holland Street	Cambridge Line	Public	40	1,250	-
Newton . . .	Webster Ave.	Concord Ave. .	Public	40+	650	-
Norfolk . . .	Webster Ave.	Cambridge Line	Public	40	200	-
North . . .	Broadway . .	Medford Line .	Public	40	2,550	-
North Union .	Mystic Avenue	Northeasterly .	Private	30	-	(0)
Norwood Ave..	Broadway . .	Medford Street .	Private	40	-	350
Oak . . .	Prospect Street	Angle . . .	Public	40	670	-
Oak . . .	Angle . . .	Cambridge Line	Private	30	-	530
Oak Street Place	Oak Street . .	Northerly . . .	Private	4	-	85
Oakland Avenue	Marshall Street	School Street .	Public	40	440	-
Olive Square .	Lake Street .	Southerly . . .	Private	about 15	-	100
Oliver . . .	Franklin Street	Cross Street . .	Public	40	1,050	-
*Orange . . .	Broadway . .	Cedar Street . .	Private	40	-	1,175
Orchard . . .	Cambridge Line	Mecham Street .	Public	40	1,625	-
*Orient . . .	Morrison Street	Orange Street .	Private	40	-	1,240
Osgood . . .	Granite Street	East'ly & west'ly	Private	40	-	450
Otis . . .	Cross Street .	Wigglesworth St	Public	40	1,200	-
Oxford . . .	School Street	Central Street .	Private	30+	-	1,330
Oxford . . .	Beacon Street	Cambridge Line	Public	50	100	-
Packard Avenue	Broadway . .	Medford Line .	Private	60	-	2,000
Palmer Avenue	Franklin Street	Northwesterly .	Private	20	-	200
Park . . .	Somerville Ave.	Beacon Street .	Public	50	1,300	-
Park Avenue .	Elm Street .	Wallace Street .	Public	40	450	-
Parker . . .	Washington St.	Fremont Ave. .	Private	35	-	200
Parker Place .	Porter Street .	Northwesterly .	Private	20	-	150
Partridge Ave.	Vernon Street	Broadway . . .	Private	40	-	1,500
Patten Court .	Cutter Street .	Southeasterly .	Private	8	-	100
Pearl . . .	Crescent Street	Medford Street .	Public	40 & 50	4,750	-
Pearl Street Pl.	Pearl Street .	Northeasterly .	Private	20	-	200
Pembroke . .	Central Street	Sycamore Street	Private	40	-	440
Perkins . . .	Franklin Street	Charlest'n Line	Public	40	1,350	-
Perkins Place .	Perkins Street	Northeasterly .	Private	20	-	200
Pinckney . .	Washington St.	Perkins Street .	Public	40	1,170	-
Pitman . . .	Beech Street .	Belmont Street	Private	30	-	800
Pleasant Avenue	Walnut Street	Vinal Avenue .	Public	40	470	-
Poplar . . .	Somerville Ave.	Joy Street . . .	Private	30 & 35	-	650
Porter . . .	Elm Street .	Summer Street .	Public	45	1,150	-
Porter . . .	Summer Street	Brastow Ave. .	Private	45	-	200
Prescott . . .	Summer Street	Highland Ave. .	Public	50	1,050	-
Preston . . .	School Street .	Summer Street .	Public	40	800	-
Professors' Row	College Avenue	Curtis Street .	Private	40	-	1,900
Prospect . . .	Washington St.	Cambridge Line	Public	40 & 50	2,050	-
Prospect Hill Av.	Medford Street	High Street .	Public	40	450	-
Prospect Place	Prospect Street	Brick-yard Lane	Private	20	-	130
Putnam . . .	Summer Street	Highland Ave. .	Public	50	1,240	-
Quincy. . . .	Somerville Ave.	Summer Street .	Public	40	700	-
*Rand	Morrison Street	Orange Street .	Private	40	-	1,630
Raymond Ave.	Curtis Street .	North Street . .	Private	40	-	1,350

* Proposed.

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC.	PRIVATE.
Records' Place	Broadway . .	Southwesterly	Private	10	-	110
Reed's Court .	Oliver Street .	Southwesterly .	Private	20	-	105
Remick Court	Cutter	Southeasterly .	Private	10	-	100
Richdale Ave.	School Street .	Sycamore Street	Private	40	-	850
Rideout . . .	South Street .	Cambridge Line	Private	30	-	115
Robinson . .	Central Street	Bartlett Street	Private	40	-	645
Roseland . .	Beacon Street	Cambridge Line	Public	40	100	-
Rossmore . .	Somerville Ave.	Washington St.	Private	40	-	525
Runey	Cross Street .	Aldrich Street	Private	40	-	760
Rush	Broadway . .	Flint Street . .	Public	40	1,400	-
Russell . . .	Elm Street . .	Cambridge Line	Public	40	700	-
Sacramento .	Somerville Ave.	Cambridge Line	Private	40	-	600
Sanborn Avenue	Warren Avenue	Walnut Street .	Private	40	-	300
Sargent Avenue	Broadway . . .	Mills Street . .	Private	40	-	450
School Street .	Somerville Ave.	Broadway . . .	Public	40 & 50	4,370	-
Seilon Court .	Marshall Street	Northwesterly .	Private	12	-	120
Sewall	Grant Street .	Temple Street .	Private	40	-	650
Sewall Court .	Sewall Street .	Southwesterly .	Private	25	-	190
Shawmut . .	Washington St.	Cross Street . .	Public	40	550	-
Shawmut Place	Shawmut Street	Alston Street .	Private	30	-	200
Sherman . . .	Somerville Ave.	Frost Avenue . .	Private	35	-	270
Sibley Court .	Cutter Street .	Northwesterly .	Private	10	-	100
Sibley Place .	Cutter Street .	Northwesterly .	Private	10	-	100
Simpson Avenue	Broadway . . .	Holland Street .	Private	40	-	825
Skehan	Hanson Street	Dane Street . .	Private	30	-	300
Smith Avenue	Beacon Street	Line Street . .	Private	25+	-	200
Somerville Ave.	E. Camb. Line	N. Camb. Line .	Public	70 & 75	11,100	-
South	Medford Street	Westerly	Private	30	-	940
Spring	Somerville Ave.	Summer Street .	Public	35	1,200	-
Spring Court .	Somerville Ave.	Westerly	Private	20	-	200
Springfield .	Concord Ave.	Cambridge Line	Public	40	800	-
Stickney . . .	Marshall Street	School Street .	Private	40	-	450
St. James Ave.	Elm Street . .	Summer Street .	Private	40	-	488
Stone Avenue .	Union Square	Columbus Ave. .	Private	40	-	675
Stone Place .	Stone Avenue	Southeasterly .	Private	30	-	145
Summer	Bow Street . .	Elm Street . .	Public	45	7,700	-
Summit Avenue	Walnut Street	Vinal Avenue .	Public	45	470	-
Sunnyside Ave.	Walnut Street	Wigglesworth St	Private	35	-	250
Sycamore . . .	Broadway . .	Medford Street	Public	45	1,250	-
Sycamore . . .	Medford Street	Highland Ave. .	Private	33 & 40	-	1,350
Sydney	Wheatland St.	Temple Street .	Private	40	-	925
Taggard Court	Beacon Street	Northeasterly .	Private	15	-	200
Taylor's Place	Somerville Ave.	Southerly . . .	Private	15	-	200
Taylor	Mystic Avenue	Sydney Street .	Private	40	-	310
Temple	Broadway . . .	Mystic Avenue .	Public	66	1,540	-
Tenney Court .	Mystic Avenue	Northeasterly .	Private	30	-	400
Tennyson . .	Foster Street .	Pembroke St. .	Private	40	-	900
Thorndike . .	Holland Street	Arlington B.R.R.	Private	40	-	400
Thorpe Place .	Highland Ave.	Southwesterly .	Private	30	-	450
Thurston . .	Broadway . . .	Medford Street	Public	40	1,350	-
Thurston . .	Medford Street	Richdale Ave. .	Private	40	-	300
*Tower	Crown Street .	Highland Ave.	Private	40	-	550
Tower Court .	Tyler Street . .	Northeasterly .	Private	25	-	150
Tremont . . .	Webster Ave.	Cambridge Line	Private	40	-	450
Trull	Vernon Street	Medford Street	Private	40	-	1,050
Trull Lane . .	Highland Ave.	Oxford Street .	Private	15	-	200
Tube Works Ct.	Somerville Ave.	Southwesterly .	Private	20	-	150
Tufts	Washington St.	Cross Street . .	Public	40	940	-
Tyler	Vine Street . .	Dane Street . .	Private	40	-	400
Union	Broadway . . .	Mystic Avenue .	Public	40	330	-
Union Place .	Linwood Street	Southwesterly .	Private	10	-	100

STREET.	FROM	TO	PUBLIC OR PRIVATE.	WIDTH IN FEET.	LENGTH.	
					PUBLIC	PRIVATE
Veazie . . .	Walnut St. .	Bradley St. . .	Private	40	-	650
Vernon . . .	Central St. .	Jenny Lind Ave.	Public	40	740	-
Vernon . . .	Jenny Lind Ave.	Lowell St. . .	Private	30	-	600
Villa Avenue .	Winslow Ave.	Arlington B. R.R.	Private	40	-	200
Village . . .	Dane St. . .	Vine St.	Private	25	-	370
Vinal Avenue .	Summer St. .	Highland Ave. .	Public	45	1,400	-
Vine	Somerville Ave.	Beacon St. . .	Private	25 & 40	-	1,400
Virginia . . .	Aldrich St. .	Jasper St. . .	Private	40	-	350
Wallace . . .	Holland St. .	Broadway. . .	Public	40	1,350	-
Walnut . . .	Bow St. . . .	Broadway. . .	Public	40	3,830	-
Ward	Medford St. .	Earl St.	Private	30	-	610
Warren . . .	Medford St. .	Cambridge Line	Private	30	-	100
Warren Avenue	Union Sq. . .	Columbus Ave.	Public	40	650	-
Warwick. . .	Cedar St. . .	Southeasterly. .	Private	40	-	630
Washington .	Charlest'n Line	Cambridge Line	Public	60 to 100	7,250	-
Washington Av.	Washington St.	Northerly . . .	Private	18	-	350
Water	South St. . .	Northerly . . .	Private	25	-	250
Waverly . . .	Washington St.	Southerly . . .	Private	35	-	200
Weare	Curtis St. . .	Northwesterly .	Private	40	-	700
Webster . . .	Franklin St. .	Cross St.	Public	40	1,000	-
Webster Avenue	Union Sq. . .	Cambridge Line	Public	49.5	1,950	-
Wellington Ave.	Walnut St. .	Southeasterly .	Private	40	-	300
Wesley	Otis St. . . .	Southwesterly .	Private	30	-	150
Wesley Park .	Wesley Sq. .	Northeasterly .	Private	40	-	405
West	Broadway . .	Heath St. . . .	Private	30	-	250
West	Hawthorne St.	Arlington B. R.R.	Private	30	-	590
Weston Avenue	Clarendon Ave.	Broadway. . .	Private	40	-	525
Wheatland . .	Broadway . .	Mystic Ave. . .	Private	40	-	1,350
Whipple . . .	Hawthorne St.	Arlington B. R.R.	Private	30	-	575
Wigglesworth.	Bonair St. . .	Southwesterly .	Private	40	-	500
William	Chandler St. .	Elm St.	Private	40	-	400
Williams Court	Porter St. . .	Northwesterly .	Private	30	-	150
Willoughby .	Central St. .	Sycamore St. .	Private	30	-	400
Willow Avenue	Elm St. . . .	Broadway. . .	Public	50	3,440	-
Willow Place .	Cambridge Line	South St. . . .	Private	25	-	150
Wilson Avenue	Broadway . .	Cedar St. . . .	Private	20	-	475
Wilton	Lowell St. . .	Lawrence St. .	Private	35	-	470
Winslow Avenue	Elm St. . . .	Grove St. . . .	Private	40	-	470
Winter	Elm St. . . .	Holland St. . .	Private	30	-	430
Winthrop Ave.	Broadway . .	Mystic Ave. . .	Public	50	1,170	-
Woodbine . .	Centre St. . .	Lowell St. . .	Private	30	-	600
Wyatt.	Concord Ave.	Northerly . . .	Private	40	-	400
Wyatt Court .	Wyatt St. . .	Westerly	Private	13	-	200
Total . . . .	. . . . .	. . . . .	. . . .	. . .	225,152	168,596

Public, 42.64 miles; private, 31.90 miles.

REPORT
OF THE
COMMITTEE ON FIRE DEPARTMENT.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 3, 1889.

Accepted and referred to the next city council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 3, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

IN COMMITTEE ON FIRE DEPARTMENT,
Jan. 3, 1889.

To the City Council.

The following is the final report of the Committee on Fire Department for the year ending Dec. 31, 1888:

The annual report of the Chief Engineer, herewith presented, gives all information as to the organization, equipment and operation of the department during the year.

A new hose wagon, with light ladders attached, costing \$496.05, has been substituted for the hose carriage, with the old-fashioned reel, heretofore used by the company in Ward One.

Life saving apparatus has been provided, as required by Chapter 310, Section 1, of the laws of 1888, at a cost of \$130.

Five horses have been bought and the same number of old ones sold.

The "R. A. Vinal" ladder-truck, built in 1874, is so exceedingly heavy that it has been out of service for some time past, and the old "Prescott" truck has been used temporarily. A suitable truck has been ordered of Messrs. Teele & Co. of Medford, but has not, as yet, been delivered.

In pursuance of an order passed by the City Council, and approved Sept. 28, a contract was made Oct. 8, with Messrs. Coon & Hall, for the erection of a brick hose-house on the City's land at the corner of Somerville Avenue and Lowell Street, in accordance with plans by E. K. Blaikie, architect, for the sum of \$9,837. The first floor is on, and the walls are in process of erection.

This building was located on Somerville Avenue, contrary to the recommendation of this committee, the committee believing it should have been placed on Spring Hill.

The appropriation, receipts, and expenditures are shown by the following statements :

FIRE DEPARTMENT ACCOUNT.

CREDIT.

Appropriation	\$27,000 00	
Receipts for property sold . . .	100 33	
	<hr/>	
Total credit		\$27,100 33

DEBIT.

Expenses : —

For salaries of permanent men .	\$9,780 00
“ “ call-men . . .	4,898 09
substitute drivers . . .	487 42
improvements and repairs of apparatus and vehicles .	561 06
improvements and repairs of buildings and furniture and new furniture	1,299 28
new vehicles and apparatus .	626 05
maintenance and extension of fire alarm telegraph . . .	1,261 10
hose and hose pipes and re- pairing same	52 96
new horses, — five old ones given in trade and . . .	1,185 00
grain and feed	600 07
hay and straw	906 72
horse shoeing	256 50
horse doctoring and medicine	131 35
harnesses, and repairing same	242 60
fuel	1,065 79
supplies	186 16
water for hydrants . . .	1,848 00
“ “ department build- ings	105 00

<i>Amounts carried forward .</i>	<hr/> \$25,493 15	<hr/> \$27,100 33
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<i>Amounts brought forward</i>	\$25,493 15	\$27,100 33
gas	378 80	
insurance	15 00	
washing and ironing . .	136 30	
maintenance of reservoirs .	2 00	
“ “ hand fire-ex-		
tinguishers	50 42	
telephone	74 40	
incidentals	508 81	
ice	85 00	
	<hr/>	
Total debit		\$26,743 88
		<hr/>
Balance unexpended		\$356 45

HOSE HOUSE IN WARD FOUR ACCOUNT.

CREDIT.

Appropriation \$10,000 00

DEBIT.

Expenditures:—

For committee's travelling ex-		
penses to and from Wor-		
cester	\$ 13 40	
Coon & Hall, on account of		
contract	2,500 00	
	<hr/>	
Total debit		\$2,513 40
		<hr/>
Balance unexpended		\$7,486 60

For the committee,

BERNARD W. LAWRENCE, *Chairman.*
GEO. I. VINCENT, *Clerk.*

REPORT

OF THE

CHIEF ENGINEER OF FIRE DEPARTMENT.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

SOMERVILLE, MASS., Jan. 3, 1889.

To the Committee on Fire Department.

GENTLEMEN:— I present a report of the operations of the Fire Department for the year 1888, together with a statement of the department's present condition and immediate needs.

MANUAL FORCE.

Sixty-one men compose the working force of the department, divided as follows :

One chief	1
One assistant	1
One steam fire-engine company	12
Four hose companies, eight men each	32
One hook and ladder company	15
Total	<hr/> 61

Of these, S. F. E. Co. No. 1 has one engineer, one assistant engineer or fireman, and two drivers, permanently employed. Each hose and the hook and ladder company has a driver similarly employed, and all the other members are what are commonly designated as "call men."

APPARATUS.

This consists of one steam fire-engine, with hose carriage, three hose carriages, one hose wagon, and one hook and ladder truck.

There are also, one old steam fire-engine, one hose carriage, and one hook and ladder truck that are available for use in the events of accidents or repairs to the apparatus in regular service. It should be said, however, that this contingent cannot be employed,

in emergency, as promptly as could be desired, since reliance must be placed upon the horses of the regular apparatus, and these cannot be employed until after their immediate and most urgent duties have been performed.

HOSE.

There are in service 8,000 feet of hose. No new hose was bought during the year; but a quantity must be purchased, in the near future, to replace that which has become unserviceable. The importance of this article of equipment is too obvious to be dwelt upon.

FIRE-ALARM TELEGRAPH.

There are now in the city 40 miles of wire, 41 signal boxes, 6 bell strikers, and 18 gongs.

As I have often said, the importance of keeping this branch of the service in perfect working order cannot be over-estimated. It is the warning and directing agent of our whole fire system, and the possibilities consequent upon its disarrangement are of the most serious nature. It need but be remembered that our reliance is almost entirely upon a call department to emphasize this fact.

The care of the fire-alarm telegraph has thus far devolved upon the permanent men of the steamer company, detailed for duty by the chief of department, and their duties are the cleaning and management of the battery and electrical apparatus, and the care and repairing of lines, bell strikers, and gongs under all circumstances. When these men are thus engaged the regular service is unavoidably weakened, and it often happens that but one man is left in quarters with but two horses to perform the duties which our citizens are justified in expecting to have satisfactorily performed by the full force at a moment's notice. I, therefore, renew my recommendation that a line man be specially employed, who shall sleep in the engine house, and, under the direction of the chief, have charge of all matters pertaining to this essential mechanism. I also recommend the placing of additional boxes for the protection of sections of the city as yet remote.

LADDER SERVICE.

The location of H. & L. truck No. 1 on the south side of the city affects the efficiency of the service in East Somerville and at Winter Hill. This was, likewise, the case at West Somerville until an apparatus to carry ladders was placed in the house of Hose No. 4.

The new hose wagon in East Somerville is equipped with ladders, and a similar piece of apparatus should be placed in the Winter Hill hose house in place of the carriage now in use. With this *matériel*, properly manned, the necessity for another ladder truck and company will be obviated for many years.

I recommend that an additional permanent man be employed on Hose 4, and another on Hose 1, that the demands, which are daily growing more imperative, may be properly met.

This matter of an increased permanent force deserves serious consideration; for, however good the apparatus may be, however complete the devices for quick hitching and celerity, they are, in a measure, neutralized by the limited number of permanent men at present employed, and the reliance which must be placed upon the call system.

A new light H. & L. truck, to replace the heavy truck now discarded, will be ready in January. I have confidence that the wisdom of the committee on Fire Department, in thus assuring the quick arrival at fires of one of our most important pieces of apparatus, will be duly appreciated.

BUILDINGS.

The several buildings used by the department are in good order, and the expense of keeping them so will be but nominal, unless alterations are made to furnish accommodations for additional apparatus. This statement is, perhaps, somewhat strained when applied to the hose house on Webster Street, which building is constantly requiring repairs. A new fire station will soon be needed in that section.

A new hose house is being erected on the corner of Somerville Avenue and Lowell Street. It will be completed early in the spring, when a company and apparatus will be provided.

CHEMICAL ENGINE.

Experience has demonstrated the value of these engines in all places, especially in cities which, like Somerville, have many wooden buildings with shingled roofs. This city needs such an engine, and it should be located at the corner of Highland Avenue and Walnut Street, because of the central location. This would necessitate the alteration or widening of the steamer house which would then be of inestimable value, not only as the repository of apparatus, but for all the purposes of the fire-alarm telegraph.

STEAM FIRE ENGINE.

Somerville should have either another steam fire engine or an increased water pressure. As the question of increased pressure for domestic and fire purposes is being discussed, I will only say that either an increased gravity pressure must be supplied, or else more steam power must be furnished to increase the pressure we now have.

That this matter may be practically exemplified, I submit for your consideration the accompanying table, compiled from estimates made from actual tests by that eminent civil engineer, Geo. A. Ellis.

Pressure in lbs. at Hydrant.	Feet of Hose.	Effect of Pressure at Nozzle.	Gallons Disch'gd.	Hori- zontal Dist.	Ver- tical Dist.	Loss at Nozzle.
20	300	12	84	54	26	8
22	500	10	77	49	22	12
26	700	10	77	49	22	16
34	1,000	10	77	49	22	24
30	300	18	104	66	39	12
30	500	14	92	58	30	16
31	700	12	84	54	26	19
41	300	25	122	80	52	16
40	500	19	107	68	41	21
41	700	16	98	62	35	25
42	1,000	13	89	56	28	29
51	300	31	136	92	64	20
50	500	24	120	78	50	26
50	700	20	110	70	43	30
51	1,000	16	98	62	35	35

Estimated at 1 inch Nozzle, Rubber Hose, on Level Ground.

Water is to the firemen what powder is to the soldier, and each adequately supplied with his peculiar ammunition is prepared for any emergency.

On the elevated portions of our city, property is constantly jeopardized by the lack of sufficient water pressure, and should there be a threatening fire in any of such sections, that would require the simultaneous use of several hydrants, our hydrant system would be found practically useless by all the companies save that of the single steamer now in service; and in case of an accident to that engine, very unpleasant possibilities can readily be conceived.

True, our neighboring cities and towns are ever ready to render assistance; but, by their so doing, we incur a debt which should be paid in kind, on occasion, but which could not be so repaid, under existing conditions, without imperiling our own municipality. Attention cannot be too soon nor too earnestly directed to this question.

HORSES.

Hose carriage No. 2, and H. & L. truck No. 1, were furnished with two new horses each, also one new horse for the steamer, and horses are greatly needed for hose carriage No. 3.

ALARMS.

There were 42 bell alarms during the year, attributable to the following named causes:

Incendiary	4
Fire crackers	1
Rats and matches	1
Breaking of kerosene lamps	5
Chimney fires	3
Sparks on roofs	3
Explosion of powder	1
Sparks from tobacco-pipe	3
Children playing with matches	2
Live coals from stove	1
Brick oven resting on wood	2
Burning of rubbish	1

Fire in Medford	1
Defective stove-pipes	3
Sparks from cooper's oven	1
Thawing water-pipes	1
Unknown	1
Sparks in wood-box near stove	1
Drying plastering	1
Lamp in contact with clothing	1
Grass fires	2
Boiling over of kettle	1
Sparks from forge	1
Sparks from fire-box of boiler	1

The total number of still alarms was seven.

The loss by fire was	\$4,238 50
Insurance	21,250 00
Insurance paid	3,868 00

To his Honor the Mayor, the Committee on Fire Department, the members of the City Council, the officers and members of the Police and Fire Departments, and to our citizens generally, my thanks are due for prompt and hearty co-operation, at all times and under all circumstances, during the year.

Respectfully submitted,

JAMES R. HOPKINS,
Chief of Department.

REPORT
OF THE
COMMITTEE ON FUEL AND ST. LIGHTS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 3, 1889.

Ordered to be filed with the city clerk for presentation to the next city council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

IN COMMON COUNCIL, Jan. 3, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk*.

CITY OF SOMERVILLE.

IN COMMITTEE ON FUEL AND STREET LIGHTS,
Jan. 3, 1889.

To the City Council of Somerville. —

The following is the final report of the Committee on Fuel and Street Lights for the year ending Dec. 31, 1888.

SCHOOL FUEL ACCOUNT.

CREDIT.

Appropriation	\$6,500 00
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DEBIT.

Expenditures: —

For fuel to Beach Street School	\$ 90 65
Bell	" . 535 13
Bennett	" . 179 64
Bingham	" . 294 00
Brastow	" . 79 70
Burns	" . 218 28
Cedar Street	" . 44 13
Cummings	" . 95 85
Davis	" . 361 16
Edgerly	" . 1,055 35
Elm Street	" . 80 53
Forster	" . 549 00
Franklin	" . 230 25
Harvard	" . 5 63

<i>Amounts carried forward . . .</i>	<i>\$3,819 30</i>	<i>\$6,500 00</i>
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<i>Amounts brought forward</i>	.	.	\$3,819	30	\$6,500	00
High School	.	.	537	07		
Highland	"	.	691	00		
Jackson	"	.	181	85		
Lincoln	"	.	362	54		
Morse	"	.	243	50		
Prescott	"	.	694	00		
Prospect Hill	"	.	202	64		
Spring Hill	"	.	39	73		
School room, Somerville						
Avenue	.	.	18	63		
Union	.	.	45	88		
Webster	.	.	276	60		
Incidentals (fuel book)	.	.	8	50		
					<hr/>	
Total debit	.	.	.	.	\$7,121	24
					<hr/>	
Amount overdrawn	.	.	.	.	\$621	24
					<hr/>	

STREET LIGHTS ACCOUNT.

CREDIT.

Appropriation	.	.	.	.	.	.	\$16,000	00
Receipts:—								
For new lamps erected	.		\$40	00				
repairs of lamps damaged								
by teams	.	.	13	00				
					<hr/>		\$ 53	00
posts and lanterns on hand Jan. 1			212	00				
					<hr/>		265	00
					<hr/>			
Total credit	.	.	.	.	.	.	\$16,265	00

DEBIT.

Expenditures:—

For gas,—

to Cambridge Gas Light Co.	\$1,901	75		
to Charlestown Gas Co. .	1,739	06		
<i>Amounts carried forward</i> .	\$3,640	81	\$16,265	00

<i>Amounts carried forward</i>	\$3,640 81	\$16,265 00
lighting and care of gas and oil lamps	2,236 43	
electric lights		
maintenance	\$9,449 43	
braces	8 58	
	<hr/> \$9,458 01	
new gas lamps	71 05	
repairs of gas and oil lamps	339 45	
supplies (oil, alcohol, wicks, matches, torches, etc.)	209 55	
discontinuing gas and oil lamps	13 00	
moving gas lamps	3 88	
street signs	5 00	
incidentals	24 70	
posts and lanterns on hand (10 posts and 13 sign lanterns)	163 25	
	<hr/>	
Total debit		\$16,165 13
		<hr/>
Balance unexpended		\$99 87
		<hr/>

FUEL.

Such fuel as was required during the first six months of the year was bought of Messrs. B. F. Wilde & Co. and Horatio Wellington & Co. at market rates.

Under an order passed June 13, and 14, proposals were solicited to furnish such fuel as might be required at the various public buildings during the year commencing July 1; and, in response, proposals were received to furnish fuel, for the the next thirty days only, from Messrs. G. T. Burnham & Co., B. F. Wilde & Co., and Horatio Wellington & Co., all at the following prices: Furnace coal, per ton, \$5.35; egg, \$5.60; and stove, \$5.85; hard wood, per cord, \$9, and soft wood, \$7.50.

A contract for thirty days from July 1, was made with Messrs. Wilde & Co. for fuel for the buildings on the north side of the

city, and with Messrs. Wellington & Co. for the remainder, and the bins were filled to their utmost capacity. Since the expiration of these contracts, such purchases as were necessary have been made of the same parties at the current prices.

STREET LIGHTS.

GAS AND OIL.

The price for gas in the four-feet burner lamps was \$1.65 per thousand feet to Aug. 1, and \$1.55 from that date to the end of the year.

In the two thirty-feet lamps, one of which is supplied by the Charlestown Company and the other by the Cambridge Company, the price paid the last-named company was \$1.50 throughout the year, and the former company \$1.65 to Aug. 1, and \$1.55 for the balance of the year. The gas and oil lamps are lighted every night until 12.30 o'clock, except when the moon is shining clear. They have been burning 283 nights in the past year.

ELECTRIC.

By authority of the City Council, the contract with the Somerville Electric Light Company, which expired June 1, was extended for one year.

Fifty-four lights were in service Jan. 1, and sixteen were added in the first two months of the year, making the present number seventy, which is the limit fixed by the City Council.

The new lights are the property of the company, and have been placed on the company's poles without expense to the city. The price for lighting is thirty-seven cents per night for each lamp, and the lamps burn every night until one o'clock.

Twenty-six gas and three oil lamps have been discontinued by reason of the erection of electric lamps.

The following is a table of street lamps in the city:—

	GAS LAMPS.				Oil Lamps.	Electric Lamps.	Total.
	Charles-town.		Cam-bridge.				
	4-foot burners.	30-foot burners.	4-foot burners.	30-foot burners.			
Lamps in the city, Jan. 1, 1888, as per last report	170	1	190	1	78	54	494
Erected during the year at the expense of abutters	2				3		5
Erected during the year at the expense of company						16	16
	172	1	190	1	81	70	515
Discontinued because of the erection of electric lamps	9		19		3		31
	163	1	171	1	78	70	484
Discontinued because of the electric lamps, and now re-established .	1		1				2
	164	1	172	1	78	70	486
Changed from oil to gas, omitted in last report			2		2		
	164	1	174	1	76	70	486
Error in report for the year 1887 . . .	1		1				
	163	1	175	1	76	70	486

For the committee,

T. C. DWYER, *Chairman.*GEO. I. VINCENT, *Clerk.*

REPORT
OF THE
COMMITTEE ON PUBLIC PROPERTY.

CITY OF SOMERVILLE.

IN BOARD OF MAYOR AND ALDERMEN, Jan. 3, 1889.

Ordered to be filed with the city clerk for presentation to the next city council, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

Concurred in.

IN COMMON COUNCIL, Jan. 3, 1889.

CHARLES S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

IN COMMITTEE ON PUBLIC PROPERTY, Jan. 3, 1889.

To the City Council of Somerville.

The committee on public property presents the following final report for the year 1888:—

POLICE STATION INCIDENTALS ACCOUNT.

CREDIT.

Appropriation	\$2,000 00	
Transfer from school-house in Ward		
Three account	349 07	
Transfer from school-house in Ward		
Four account	204 45	
Receipts for rent of halls	568 00	
Total credit		\$3,121 52

DEBIT.

Expenditures:—

For janitor's salary	\$750 00
janitor's substitute in vacation	14 00
gas	503 59
fuel	488 45
water	63 00
insurance	75 00
repairs and improvements on build- ing and furniture	879 71
incidentals	25 91

Total debit	2,799 66
-----------------------	----------

Balance unexpended	<u>\$321 86</u>
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SCHOOL-HOUSE INCIDENTALS ACCOUNT.

CREDIT.

Appropriation	\$10,000 00	
Transfer from miscellaneous account .	1,700 00	
“ “ watering streets “ .	1,000 00	
Receipts for use of ward room in school-house	3 00	
Receipts for junk sold from school-house .	8 81	
Total credit		\$12,711 81

DEBIT.

Expenditures:—

For repairs	\$6,130 48
improvements	5,391 90
furniture	1,325 98
rent	456 91
insurance	446 25
emptying privy vaults	108 00
sidewalk and sewer assessments .	114 73
carriage hire	10 00
account books	9 50

Total debit	13,993 75
-----------------------	-----------

Amount overdrawn	\$1,281 94
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Expenditures at the different school-houses are as follows:—

Beach Street.

Repairs (including new front and back steps and reshingling west side of roof)	\$297 23	
Emptying privy vaults	56 00	
		\$353 23
<i>Amount carried forward</i>		<i>\$353 23</i>

Amount brought forward \$353 23

Luther V. Bell.

Repairs \$334 59

Improvements:—

constructing new room \$427 79

heating apparatus for

water closets . . 384 27

partitions and ventila-

tion in water closets 191 27

radiator in office . 50 03

concreting . . 528 57

————— \$1,581 93

Sidewalk assessment 65 31

Furniture 208 50

Insurance 75 00

————— \$2,265 33

Bennett.

Repairs \$103 04

Emptying privy vaults . . . 16 00

————— \$119 04

Bingham.

Repairs \$28 53

Furniture 34 00

Insurance 75 00

————— \$137 53

Brastow.

Repairs (including painting outside
and new front fence) . . \$246 43

Emptying privy vaults . . . 8 00

————— \$254 43

Burns.

Repairs \$122 05

Furniture 34 00

Insurance 75 00

————— \$231 05

Amount carried forward \$3,360 61

Amount brought forward \$3,360 61

Cedar Street.

Repairs (including painting outside, rebuilding fence and shingling shed)	\$167 87	
Emptying privy vaults	8 00	
	<hr/>	\$175 87

Cummings.

Repairs	\$52 01	
Furniture	9 33	
	<hr/>	\$61 34

Clarendon Block.

Rent for month of August, 1887	\$22 91
--	---------

Davis.

Repairs (including \$176.22 on furnaces)	\$234 64	
Furniture	13 43	
	<hr/>	\$248 07

Edgerly.

Repairs (including painting tin roof)	\$ 279 80	
Improvements (new water closets and urinals)	1,095 35	
Furniture	92 18	
	<hr/>	\$1,467 33

Elm Street.

Repairs	\$24 15	
Furniture	62 50	
Rent	300 00	
	<hr/>	\$386 65

Eberle Building.

Furniture and fitting up	\$101 37
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<i>Amount carried forward</i>	\$5,824 15
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Amount brought forward \$5,824 15

Forster.

Repairs (including tinting and whitening upper story, repairing and painting tin roofs, and rebuilding fence south side) . . . \$467 70

Improvements:—

Two new radiators and piping for upper south and east rooms . \$277 34
partitioning water closets 27 30
————— \$304 64

Furniture 103 97

Insurance 75 00

————— \$951 31

Franklin.

Repairs (including painting outside) . . . \$542 04

Hill Building.

Rent \$100 00

Furniture, and fitting up room . . 142 11

————— \$242 11

Harvard.

Repairs \$ 68 02

High.

Repairs \$539 12

Improvements:—

Two schoolrooms in hall . \$654 96

Two closets, one for books
and one for drawing
utensils . . . 82 46

————— \$737 42

Insurance 75 00

Furniture 319 85

————— \$1,671 39

Amount carried forward \$9,299 02

Amount brought forward \$9,299 02

Highland.

Repairs (including tinting and whitening entire building and	\$153.59	
on furnaces	\$379 68	
Improvements (concreting in girls' yard)	207 00	
Sewer assessment	49 42	
	<hr/>	\$636 10

Jackson.

Repairs (including painting outside)	\$449 57
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Lincoln.

Repairs (including \$181.26 on furnaces)	\$268 72
--	----------

Morse.

Repairs (including \$52.07 stove work)	\$150 52
Improvements : —	
Concrete walks in both yards	\$295 20
new entrances, steps and wooden walk in boys' yard.	46 77
	<hr/>
	341 97
Furniture	16 50
	<hr/>
	\$508 99

Prescott.

Repairs (including new grate bars for boiler, and painting fences) . .	\$498 34
Improvements : —	
New porticos to entrances to school-houses and water closets	\$645 42
concreting girls' yard	478 17
	<hr/>
	\$1,123 59
<i>Amounts carried forward</i>	\$1,621 93
	<hr/>
	\$11,162 40

<i>Amounts brought forward</i>	.	.	\$1,621 93	\$11,162 40
Furniture	.	.	51 45	
Insurance	.	.	71 25	
			<hr/>	\$1,744 63
<i>Prospect Hill.</i>				
Repairs	.	.	\$76 35	
Furniture	.	.	6 50	
			<hr/>	\$82 85
<i>188 Somerville Avenue.</i>				
Rent	.	.	\$ 34 00	
Furniture and fitting up	.	.	105 12	
			<hr/>	\$139 12
<i>Spring Hill.</i>				
Repairs (including re-shingling)	.	.	\$176 57	
Furniture	.	.	25 17	
			<hr/>	\$201 74
<i>Union.</i>				
Repairs	.	.	\$110 53	
Emptying privy vaults	.	.	4 00	
			<hr/>	\$114 53
<i>Webster.</i>				
Repairs (including painting outside)	.	.	\$512 98	
Emptying privy vaults	.	.	16 00	
			<hr/>	\$528 98
Total	.	.		\$13,974 25
Carriage hire	.	.		10 00
Account books	.	.		9 50
Total expenditure	.	.		<hr/> <hr/> \$13,993 75

SCHOOL-HOUSE IN WARD TWO ACCOUNT.

CREDIT.

Appropriation :—

Balance from the year 1887	.	.	\$4,177 55
<i>Amount carried forward</i>	.	.	<hr/> \$4,177 55

Amount brought forward \$4,177 55

DEBIT.

Expenditure : —

Paid Oren S. Knapp, attorney,—

for Anna S. Clark, guardian,
for lots 10 and 16 Concord
Square and Adrian Street,
8,424 square feet, at 20c. . \$1,684 80

for Anna S. Clark, for lots 11,
12, 15, and part of 14, Concord
Square and Adrian Street,
13,558.5 square feet, at 20c. . 2,711 70

for Mary C. Clark, for lot 17
Adrian Street, 2,535 square
feet, at 20c. . . . 507 00

Total expenditure 4,903 50

Amount overdrawn \$725 95

SCHOOL-HOUSE IN WARD THREE ACCOUNT.

(*Bingham.*)

CREDIT.

Appropriation : —

Balance from the year 1887 . \$395 11

Less transfer to police station
incidentals account . . 349 07

Net credit \$46 04

DEBIT.

Expenditures : —

For carpentering, E. Shapleigh's

unsettled bill of 1887 46 04

SCHOOL-HOUSE IN WARD FOUR ACCOUNT.

(Burns.)

CREDIT.

Appropriation : —

Balance from the year 1887	\$250 48	
Less transfer to police station incidentals account	204 45	
Net credit		\$46 03

DEBIT.

Expenditure : —

For carpentering, E. Shapleigh's unsettled bill of 1887		<u>46 03</u>
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CITY HALL IMPROVEMENTS ACCOUNT.

CREDIT.

Appropriation	\$3,000 00
-------------------------	------------

DEBIT.

Expenditures : —

Carpenter's contract, — paid F. C. Fuller	\$2,619 62	
tinting and frescoing, paid Walburg & Woehr	250 00	
moving and resetting radi- ators, paid A. A. Sanborn,	40 83	
gilding radiators, paid F. P. Wallgreen	43 50	
Total debit		\$2,953 95
Balance unexpended		<u>46 05</u>

EXPENDITURES BY THIS COMMITTEE ON MISCELLANEOUS ACCOUNT.

City Hall expenses :—

gas	\$318 62	
fuel	246 90	
water	16 80	
ice	35 00	
telephone connections . .	48 30	
insurance	11 00	
repairs and furniture . .	1,587 19	
incidentals	178 38	
	<hr/>	\$2,442 19
Preparing rooms for elections and caucuses . .		28 36
Rent of rooms “ “ “ “ . .		27 00
Repairing ballot-boxes		5 25
Distributing and collecting ballot-boxes . .		12 00
Boards for posting check-lists		15 93
Preparing hall for inauguration		5 00
Expense of auction sale of Bond Street Ledge lot, — auctioneer's charges and advertis- ing		52 08
Care of flag-staff on police building		19 30
Work at cemetery on Somerville avenue . .		15 00
Ringing bells on holidays		9 00
Rental seven sets telephone instruments in public buildings, from Sept. 1, 1887, to Sept. 1, 1889		210 00
Badges for assessors		12 25
Expenses on Rifle Range :—		
work on buildings and butts		
(in 1887),—	\$76 02	
painting	13 84	
insurance	6 00	
	<hr/>	
<i>Amounts carried forward . .</i>	<i>\$95 86</i>	<i>\$2,853 36</i>

<i>Amounts brought forward</i>	\$95 86	\$2,853 36
rent of land, one year, from Oct. 1, 1887, to Oct. 1, 1888	150 00	
	<hr/>	245 86
City Messenger's team:—		
maintenance	\$392 63	
new horse (exclusive of re- ceipt for old horse, as stated below)	250 00	
	<hr/>	642 63
Total expenditure		\$3,741 85
Less receipts:—		
for messenger's old horse	\$65 00	
portions of old flag staff (for- merly in Union Square)	9 03	
	<hr/>	74 03
Net expenditure		<u>\$3,667 82</u>

POLICE STATION INCIDENTALS ACCOUNT.

The wardrobes used for Company M, Eighth Regiment M. V. M., at the armory in the police building, were not suitable, and were located in the non-commissioned officers' rooms, which were thus rendered practically useless for the purpose for which they were intended and needed. After a presentation of the case to this committee by the officers of the company, the old closets were removed, and fifty new ones were placed in the armory proper for the use of the men, and nine for the non-commissioned officers in their rooms. The cost of the closets was \$472.75, besides an expense of \$50.38 for making necessary changes in the locations of radiators and gas fixtures.

The introduction of the Police Signal System, and the establishment of the patrol wagon, rendered a rear entrance to the police building necessary to give ready communication with the stable; and such entrance has been made, at a cost of \$113.34.

SCHOOL-HOUSE INCIDENTALS ACCOUNT.

At the high school the hall has been partitioned, so as to make two school-rooms on the north-easterly side; the blackboards in the partition between the rooms being so arranged that, by raising them, the two rooms may be used as one. Both of the rooms have been furnished, one with the furniture formerly used in the hall and the other with new furniture. The platform in the hall has also been removed, and the space it occupied has been utilized for a class in industrial drawing. Two large closets, — one for books and the other for drawing utensils, — have also been provided. The rain-water conductors at this building are all placed in the hollow space in the walls, and frequently, during heavy rains, the water from them leaks into the school-rooms, causing considerable inconvenience and damage. They should be abandoned, and new conductors placed on the outside of the building.

At the Luther V. Bell School, a new room, nineteen by forty-one feet in size, has been made in the basement, with separate clothes-rooms for the girls and boys. About one-half of the furniture in this room is new, and the remainder was taken from other buildings.

The water-closets have been partitioned, and ventilated into a warm flue; and a "Gurney" hot-water heater has been placed in the boys' closet, supplying heat for both.

At the Prescott School, porticos have been built at the entrances to the school-house and water-closets.

At the Edgerly School, the large brick tank under the water-closets has been removed, and two short-hopper tank closets have been provided for the teachers, and fifteen of the "Parsons" trough closets for the pupils. These trough closets are flushed automatically; and the janitor, by regulating the supply of water, can cause them to flush whenever and as often as it is necessary. A slab urinal, with automatic flush, has been substituted for the trough previously used, and the closets have been newly plumbed and thoroughly ventilated.

At the Davis School, a furnace, formerly used at the Bell School, has been put in, to heat the hallways and one of the rooms on the first floor.

In addition to these improvements more than one thousand dollars has been spent for concreting at the Bell, Highland, and Morse schools; and sundry lesser improvements have been made, all as specified in the foregoing financial statement.

Special attention has been given to repairs on the wooden school-houses, five of which have been painted outside.

NEW SCHOOL-HOUSES.

Aside from the payment of two small bills, of the year 1887, on the new Bingham and Burns schools in Wards Three and Four, as previously stated, the only expenditure in 1888 for new school property was the sum of \$4,903.50 for the 24,517.5 square feet of land bought of the heirs of Joseph Clark, on Concord Square and Adrian Street. (See previous statement.)

HIRED SCHOOL-ROOMS.

The store at No. 280 Elm Street is still hired for school purposes; and a small "kindergarten" room has been provided in it, in addition to the room used in 1887.

Three rooms have been hired in the Prospect Hill district during the year; one in Hill Building, at a rental of \$25 per month, including steam-heating, from April 10th, exclusive of the long vacation; another being the store, No. 188 Somerville Avenue, at a rental of \$17 per month from Oct. 1st, and the third in Eberle Building, at a rental of \$25 per month, with steam heat, from Dec. 15th.

The furniture for the room in the Hill Building was taken from a room in the Prescott School, which had been supplied with "kindergarten" furniture; that at No. 188 Somerville Avenue is new "kindergarten," and that used in Eberle Building came from a room in the Edgerly School that had been newly furnished.

CITY HALL IMPROVEMENTS.

The improvement of the City Hall, commenced in 1885 by remodelling and refinishing the lower story, has been completed in the past year by removing the standing finish of the upper

story and substituting ash, to correspond with the finish on the lower floor, and by replastering, tinting and frescoing the upper story.

The roof has also been re-slatted, the water-closet on the second floor has been improved, and the furniture on the same floor has been refinished and re-upholstered.

The cost of the work on the building amounted, as appears by the foregoing financial statement, to \$2,953.95; the cost of renewing the furniture, which was \$578.55, being paid from Miscellaneous Account and included in the statement already given of City Hall expenses.

New gas and electric combination fixtures have also been placed in the upper story, at a cost (included in the cost of furniture in the foregoing statement) of \$110.

The Somerville Electric Light Company has placed an incandescent electric lighting system, with a storage battery, in the building; the city to pay the company for supplying the new system the sum of one hundred and twenty-five dollars, and the charge for lighting not to exceed, for the same amount of light, the previous cost of gas. No bill has yet been presented.

For the committee,

ROBERT DUDDY, *Chairman.*

GEO. I. VINCENT, *Clerk.*

REPORT
OF THE
INSPECTOR OF BUILDINGS.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

Feb. 13, 1889.

To his Honor the Mayor and the City Council.

GENTLEMEN—The number of permits granted for the erection of new, and alterations of old, buildings during the year was 461.

Classified as follows:—

Dwelling-houses	365
Stores and tenements	9
Churches	1
Alterations	51
Stables	20
Hotel	1
Miscellaneous	14

As the ordinance governing the construction of buildings is in the hands of the committee on ordinances for revision, I renew my recommendation of last year, namely, that shingle roofs be covered with asbestos, or other paint, so as to make them slow burning. Extensive fires are caused by buildings catching fire on the exterior; and while the present ordinance provides for the safety of buildings from fire on the interior, no provision is made for preventing the spread of fire from one building to another on the exterior. I therefore hope that material used in covering roofs of buildings will receive consideration by the City Council.

Respectfully,

JAMES R. HOPKINS,

Inspector.

REPORT OF THE INSPECTOR OF MILK.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Jan. 3, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Jan. 3, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

Dec. 31, 1888.

To his Honor the Mayor and Gentlemen of the City Council.

I beg leave to make this my fourth annual report as inspector of milk, vinegar, and oleomargarine.

I have, during the year, issued two hundred and thirty-two licenses to sell milk, fifteen to sell oleomargarine, and registered thirty-three stores. I have collected and tested two hundred and sixty-nine samples of milk and ten samples of oleomargarine. I have served eight *legal* and twenty-eight verbal notices. I am glad to state that in all cases, I have found a perfect willingness to correct the same by change of supply, and otherwise to improve the quality of milk.

It is pleasant to report that the milk served to our citizens will compare favorably with that of any city in the State. I have tested for milkmen many samples of dairies as received by them from the country producers. By this means I have found that *all the dishonesty* in milk must not be attributed to the *retail* dealers.

The State Inspectors might do good by examining milk as it leaves the farm, as in cases where poor milk is received from the producers the retailer has to stand the brunt of the law, the fact of possession being the conviction of the party.

Hoping that this report may meet with your approval, I am,

Respectfully,

THOMAS CUNNINGHAM,
Milk Inspector, City of Somerville.

(P. S.—\$140 paid to City Treasurer.)

REPORT OF THE CITY SOLICITOR.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 28, 1889.

Referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 28, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

Feb. 25, 1889.

To the Honorable the Mayor and City Council of Somerville.

I herewith submit my report, as City Solicitor, for the year ending Dec. 31, 1888.

Aside from matters of litigation, numerous questions have been presented to me during the year by the different departments and officers of the city for my consideration and opinion, which however I need not recapitulate, as the most of them appear of record in the different departments of the city.

I have attended the meetings of the Committee on Claims, at which many claims have been heard and passed upon. In most of the cases which were thus heard, the petitioners were given leave to withdraw, and as we have heard nothing from such cases since, it is not necessary that I should trouble you with a recital of them.

The case of Susan McCauley vs. Somerville, before the Superior Court of Middlesex County, an action for personal injuries on Somerville Avenue, Jan. 24, 1886, was settled for \$150, which sum makes the total amount paid out by the city during the year on account of suits or matters in the solicitor's hands.

The claim of William N. Homer and wife vs. Somerville and Medford was on account of personal injuries received by both of said parties by being thrown from their carriage on the draw of the bridge between Somerville and Medford on the night of April 12, 1888, by reason of the iron bar for swinging off the draw having been carelessly left across the road by the draw tender. After full investigation and recommendation by the selectmen and solicitor of Medford, and also a full investigation by the Committee on Claims of this city and myself, it was deemed

advisable to settle said case by payment of \$1,200, which was accordingly done, Medford paying \$600 and Somerville \$600; the final payment not being made until after the commencement of the present year.

The following are the cases pending in the Courts to which the City of Somerville is a party:

1. *Mayor and Aldermen of Somerville vs. Fitchburg Railroad Company*—Before County Commissioners of Middlesex County. Petition for grade crossing of railroad location at Sacramento street.
2. *Parker vs. Somerville*—Before Supreme Judicial Court in Middlesex County. Bill in equity to restrain nuisance alleged to be caused by the city upon Mystic flats by a sewer.
3. *Parker vs. Somerville*—Before County Commissioners of Middlesex County. Damages on account of land alleged to have been taken for a sewer by the city.
4. *Squire vs. Somerville*—Before Superior Court in Middlesex County. Damages for conversion of box drain.
5. *Boston and Lowell Railroad Company vs. Somerville*—Before Superior Court in Middlesex County. Petition in regard to repairs and reconstruction of bridges across railroad location in Somerville, and assessment of expenses thereof.
6. *Shea vs. Somerville*—Before Superior Court in Middlesex County. Action for personal injuries upon Russell Street, Oct. 14, 1885.
7. *Joslin vs. Cole et al*—Before Superior Court in Middlesex County. Action for false arrest and imprisonment.
8. *Knowles vs. Somerville*—Before Superior Court in Middlesex County. Damages on account of land alleged to have been taken for a sewer by the city.
9. *Wanamaker vs. Somerville*—Before Superior Court in Middlesex County. Action for personal injuries upon Broadway, Feb. 6, 1887.
10. *Grover vs. Somerville*—Before Superior Court of Middlesex County. Action for personal injuries upon Union Street.
11. *Baldwin vs. Somerville*—Before Superior Court in Middlesex County. Action for personal injuries upon Cross Street, Feb. 3, 1888.

12. *Philbrook et al vs. Somerville* — Before U. S. Circuit Court. Action for damages for alleged violation of the Knibb's patent for a relief valve on steam fire engines. This action was commenced May 20, 1887, and similar actions were brought against other cities. Somerville and the other defendant cities put their cases in the hands of Livermore and Fish, patent solicitors.

At a hearing Nov. 14, 1888, the Court decided for the defendant; but plaintiffs will probably carry the case to the U. S. Supreme Court.

All which is respectfully submitted,

SELWYN Z. BOWMAN,
City Solicitor.

REPORT OF THE CITY CLERK.

CITY OF SOMERVILLE.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Accepted and referred to the committee on printing, to be printed in the annual reports. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.

Concurred in.

CHAS. S. ROBERTSON, *Clerk.*

CITY OF SOMERVILLE.

OFFICE OF THE CITY CLERK, Feb. 2, 1889.

To the Honorable, the Mayor and the City Council.

GENTLEMEN, — The following is respectfully submitted as the eighteenth annual report of the City Clerk, and is for the year ending December 31, 1888.

CASH.

The receipts and payments have been as follows:

RECEIPTS.

Balance from year 1887, being for dog licenses issued in December, 1887,	4 males at \$2 00	\$8 00
For dog licenses issued in 1888	(1,055 males at 2 00 136 females at 5 00	2,790 00
recording mortgages, assignments, &c. . .		308 50
marriage certificates . . .	367 at \$ 50	183 50
licenses to collect junk . . .	36 " 2 00	72 00
sixth class liquor licenses . . .	21 " 1 00	21 00
auctioneers' licenses . . .	8 " 2 00	16 00
billiard and pool table licenses . . .	5 " 2 00	10 00
intelligence office licenses . . .	5 " 2 00	10 00
recording, certifying, and posting notices of naturalization . . .	5 " 50	2 50
furnishing copy of record . . .		25
Total		\$3,421 75

PAYMENTS.

To Joseph O. Hayden, County Treasurer:—

June 1, and Dec. 1, — dog license fees

{ 1,051 males at \$2 00

{ 134 females at 5 00 \$2,772 00

less City Clerk's

fees, 1,185 at 20 cents . . . 237 00

\$2,535 00

To John F. Cole, City Treasurer, monthly:—

City Clerk's fees for issuing dog

licenses . . . 1,195 at \$ 20 \$239 00

All receipts, exclusive of dog license

fees, as above stated . . . 623 75

862 75

Total

\$3,397 75

BALANCE Jan. 1, 1889,— being fees for
dog licenses issued in December .

{ 8 males at \$2 00 \$16 00

{ 2 females at 5 00 10 00 \$26 00

less City Clerk's fees paid to City

Treasurer, 10 at 20 cents . . . 2 00

\$24 00

The statistics of the office are as follows:

BIRTHS.

Number of births in Somerville in 1888, registered	830
Less than previous year	47
Males	423
Females	397
	<u>830</u>
Born of American parents	326
“ “ foreign “	329
“ “ American father and foreign mother	93
“ “ foreign father and American mother	82
	<u>830</u>
Number of cases of twins	4

MARRIAGES.

Number of intention certificates issued	367
More than previous year	23
Marriages registered	378
More than previous year	19
Both parties American	178
“ “ foreign	100
American groom and foreign bride	56
Foreign groom and American bride	44
	<hr/> 378 couples
First marriage of	681
Second “ “	73
Third “ “	2
	<hr/> 378 couples
Oldest groom aged	67
“ bride “	60
Youngest groom	16
“ bride	16
Youngest couple aged :—	
Groom	16
Bride	16

DEATHS.

Number of deaths in Somerville in 1888	601
Less than previous year	20
Males	300
Females	301
	<hr/> 601
Under 10 years of age	214
Between 10 and 20 years of age	26
“ 20 “ 30 “	62
“ 30 “ 40 “	41
“ 40 “ 50 “	57
“ 50 “ 60 “	64
“ 60 “ 70 “	50
“ 70 “ 80 “	60
“ 80 “ 90 “	20
“ 90 “ 100 “	7
	<hr/> 601

Age of oldest person deceased	93
Born in Somerville	178
“ “ other places in the United States	278
Of foreign birth	142
Birthplace unknown	3
	601
Number of deaths in January	66
“ “ “ “ February	36
“ “ “ “ March	61
“ “ “ “ April	46
“ “ “ “ May	43
“ “ “ “ June	29
“ “ “ “ July	56
“ “ “ “ August	63
“ “ “ “ September	63
“ “ “ “ October	48
“ “ “ “ November	44
“ “ “ “ December	46
	601

The causes of death may be found in the report of the Board of Health.

VOTERS.

MEN'S LISTS.

PRECINCT.	On revised lists of Oct. 1, less deaths to Nov. 1.	Added in October.	Total Nov. 1.	Voted Nov. 6.
Ward 1, Precinct 1	456	166	622	570
“ 1, “ 2	470	279	749	699
“ 2, “ 1	610	294	904	858
“ 2, “ 2	602	237	839	782
“ 3, “ 1	470	161	631	598
“ 3, “ 2	370	170	540	510
“ 4, “ 1	315	178	493	467
“ 4, “ 2	414	165	579	534
Entire city	3,707	1,650	5,357	5,018

PRECINCT.	On lots of Nov. 1. less deaths to Dec. 1.	Added in November.	Total Dec. 1.	Voted Dec. 4.
Ward 1, Precinct 1	621	4	625	376
“ 1, “ 2	748	11	759	486
“ 2, “ 1	903	4	907	626
“ 2, “ 2	839	6	845	618
“ 3, “ 1	631	5	636	365
“ 3, “ 2	540	5	545	313
“ 4, “ 1	491	6	497	313
“ 4, “ 2	579	6	585	423
Entire city . . .	5,352	47	5,399	3,520

WOMEN'S LISTS.

PRECINCT.	On revised lists of Nov. 9.	Added in November.	Total Dec. 1.	Voted Dec. 4.
Ward 1, Precinct 1	1	84	85	76
“ 1, “ 2	2	77	79	70
“ 2, “ 1	3	92	95	83
“ 2, “ 2	13	185	198	180
“ 3, “ 1	3	83	86	76
“ 3, “ 2	1	109	110	98
“ 4, “ 1	5	40	45	34
“ 4, “ 2		62	62	60
Entire city . . .	28	732	760	677

Hon. Edward Glines has kindly furnished this office with two volumes of the Acts and Resolves (for the years 1871 and 1874), which could not be obtained at the office of the Secretary of State, and also with a copy of the index to the public statutes and the public acts of 1882 to 1887, inclusive.

GEORGE I. VINCENT,
City Clerk.

ORDINANCES.

CITY OF SOMERVILLE.

IN BOARD OF MAYOR AND ALDERMEN, Feb. 13, 1889.

Ordered: — That the Committee on Printing be, and is hereby, instructed to have printed, in the Annual Reports of 1888, all the Ordinances of the city that are not contained in the Municipal Register or the pamphlet supplementary thereto; the expense to be charged to Printing and Stationery account.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Read twice and adopted. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk.*

IN COMMON COUNCIL, Feb. 13, 1889.

Read twice and adopted in concurrence.

CHAS. S. ROBERTSON, *Clerk.*

February 14, 1889.

Approved,

C. G. POPE, *Mayor*

CITY OF SOMERVILLE.

ORDINANCE No. 41.

FAST DRIVING.

Be it ordained by the City Council of the City of Somerville, as follows : —

SECTION 1. — Whoever, having the care or use of a horse, or other beast of burthen, — carriage or draught, — rides, drives, or permits such horse, or other beast, to go at a greater rate of speed than ten miles an hour in a public street of this city, except in such streets, or parts of streets, and during such periods as may, from time to time, if deemed expedient, be designated by the City Council, shall be liable to a penalty of not less than five nor more than twenty dollars. [Passed Jan. 1, 1887.]

ORDINANCE No. 42.

REPEAL OF ORDINANCE No. 36.

Be it ordained by the City Council of the City of Somerville as follows :

SECTION 1. — Ordinance No. 36, entitled “Compensation of Police Officers and Patrolmen,” is hereby repealed; to take effect from and after the first day of January, 1887. [Passed April 16, 1887.]

ORDINANCE No. 5.

FUNDED DEBT.

Be it ordained by the City Council of the City of Somerville as follows:—

SECTION 1. The existing sinking funds of the city, consisting wholly of its own bonds and any accumulation of interest thereon, shall be applied toward the payment of its existing funded debt, and the board of commissioners of the sinking funds shall forthwith thus apply all the existing sinking funds in their hands by delivering the same to the city treasurer, by whom all the notes, bonds, and scrip of the city, constituting said sinking fund or a part thereof, shall be cancelled, and by whom all moneys constituting a part of said sinking fund shall be applied toward the payment of the existing funded debt under the direction of the committee on finance, and the records of said board shall be delivered to and retained by the city clerk.

SEC. 2. New notes, bonds, or scrip may be issued from time to time, as the outstanding notes, bonds, or scrip, which shall at the time of the application of the sinking funds provided for in the foregoing section constitute the remainder of the indebtedness of the city, shall severally mature, for the purpose of providing for the payment of the same, and said notes, bonds, or scrip, so issued as aforesaid, shall be payable at a time, not exceeding twenty years from the date of said issue, and the city council shall provide for the payment of the said remainder of the said indebtedness, and of said notes, bonds, or scrip, issued as aforesaid therefor, in such annual proportionate sums as will extinguish such indebtedness within the time hereby authorized.

SEC. 3. The foregoing sections of this ordinance apply to the funded debt of the city, existing at the time of the passage of said ordinance, and any extensions or renewals thereof: the words "debt" or "debts" or "indebtedness," as hereinafter used in this ordinance, apply to and mean the debt, debts, or indebtedness, incurred by the city after the passage of this ordinance.

SEC. 4. All debts, other than those incurred for temporary loans in anticipation of taxes, shall be payable within the following periods, namely: Debts incurred in supplying the inhabitants with water, and for constructing water-works, within not exceeding thirty years; debts incurred in constructing sewers and drains, within not exceeding twenty years; and all other debts, within not exceeding ten years. The interest on all debts shall be raised by taxation annually.

SEC. 5. Instead of establishing a sinking fund for the payment of the indebtedness of the city, the city council shall provide for the payment of such indebtedness in such annual proportionate payments as will extinguish the same within the time herebefore prescribed, and the amount required thereby shall be assessed by the assessors of the city in each year thereafter, until the debt shall be extinguished, in the same manner as other taxes are assessed under the provisions of section 34, of chapter 11 of the Public Statutes.

SEC. 6. The city treasurer annually in the month of January or February, shall certify to the committee on finance the amounts under this ordinance required to be raised by taxation during the current financial year, and to the board of assessors of taxes the amount required to be assessed under the provisions of the fifth section of this ordinance.

SEC. 7. The notes, bonds, and scrip to be issued by the city in payment of any indebtedness, whether heretofore or hereafter incurred, shall be, so far as practicable, issued in such amounts and on such times as will enable the city to make the annual proportionate payments of such indebtedness by taking up and cancelling such proportionate part of said notes, bonds, and scrip.

SEC. 8. Number 5, of the city ordinances, entitled "Sinking Funds," is hereby repealed, and this ordinance is substituted in place thereof; but such repeal shall not affect any act done nor any rights acquired, or liabilities incurred under said repealed ordinance; and the said board of commissioners of the sinking funds shall continue to hold their office until they shall have performed the duties imposed upon them by the provisions of the first section of this ordinance. [Passed and approved Feb. 28, 1888.]

No. 43.

[Pub. Stat., Chap. 68, Section 1. Acts of 1883, Chap. 168.]

AN ORDINANCE TO REGULATE THE SALE OF NEWSPAPERS.

Be it ordained by the City Council of the City of Somerville as follows:

SECTION 1. — No hawker and pedler of newspapers shall expose for sale or sell newspapers within the limits of the city of Somerville, unless the Mayor and Aldermen have granted to him a license therefor. The Mayor and Aldermen may grant such license to any suitable person upon the terms and conditions as hereinafter in this ordinance prescribed, and a copy of this ordinance shall be inserted in the certificate of license.

SEC. 2. — No license shall be granted to a minor, except upon the application of his parent, guardian, or next friend.

SEC. 3. — No license shall be granted to a minor under the age of ten years, and every minor under the age of fifteen years so licensed shall annually attend, for at least twenty weeks, some public day school in the city or town in which he resides, or some other school approved by the school committee.

SEC. 4. — Every person so licensed shall at all times, while engaged in the business for which he is thus licensed, wear conspicuously in sight a badge of such form as shall be approved by the Chief of Police, with the word "Licensed" and the number of his license thereon. No person not so licensed shall wear such badge.

SEC. 5. — Persons so licensed shall not congregate together, make any unnecessary noise, cry their newspapers in a loud voice, or in any other way disturb or annoy persons as they pass, or disturb the peace and comfort of the inhabitants.

SEC. 6. — Every license, when not granted for a shorter period, shall extend to the close of the municipal year.

SEC. 7. — Every person so licensed shall exhibit his license to any officer of the city for inspection, when required so to do, and the same shall not be transferred, exchanged, borrowed, or lent,

nor shall any licensed person employ or furnish with papers to sell, any unlicensed person.

SEC. 8. — Any violation of the laws of the State, or of any provisions of this ordinance or of any other of the ordinances of the city, shall operate as a forfeiture of this license.

SEC. 9. — The Mayor and Aldermen may at any time, and for any cause which they shall deem sufficient, declare any license revoked, and the same shall thereupon be forfeited and void.

SEC. 10. — Any person violating any of the provisions of this ordinance shall be punished by a fine, not exceeding ten dollars, for each offence. — [Passed Dec. 26, 1888, and approved Jan. 3, 1889.]

ORDINANCE No. 44.

TO AMEND ORDINANCE No. 4, ENTITLED “FINANCE.”

Be it ordained by the City Council of the City of Somerville as follows: —

SECTION 1. Section 4 of Ordinance No. 4, entitled “Finance,” is hereby amended by striking out the following words, namely: —

“The chairman of the Committee on Highways, the chairman of the Committee on Sewers, and the president of the Water Board may, semi-monthly, and as much oftener as required by law, approve the labor pay-rolls of their respective departments, and the treasurer may pay the same in anticipation of the monthly action of said committees and board.”

And inserting the following in place thereof, namely: —

“The pay-rolls of all employees required by law to be paid weekly, shall be made up to the end of each calendar week, and approved and sent by the chairmen of the committees and the president of the Water Board, in their respective departments, within forty-eight hours thereafter, to the City Auditor, who shall, if the pay-rolls are correct, approve and send the same within twenty-four hours of the receipt thereof by him to the

chairman of the Committee on Accounts, who shall, if the pay-rolls are correct, forthwith approve the same. The Mayor, or in his absence, the president of the Board of Aldermen, shall, if satisfied of their correctness, sign a warrant for the City Treasurer to pay the amounts thereof, and the Treasurer may thereupon pay the same." [Passed April 5th and 10th, and approved April 10th, 1889.]

MEMORIAL TO CHARLES E. GILMAN.

CITY OF SOMERVILLE.

IN BOARD OF MAYOR AND ALDERMEN, Feb. 13, 1889.

Ordered:—That a Joint Special Committee, to consist of two aldermen and such number of councilmen as may be joined, be appointed to prepare a suitable memorial of our late city clerk, Charles E. Gilman, and present the same to the Committee on Printing, to be printed with the annual reports of the year 1888; the expense to be charged to Printing and Stationery Account.

IN BOARD OF ALDERMEN, Feb. 13, 1889.

Read twice and adopted, and Aldermen Hemenway and Bradshaw appointed to the committee on the part of this branch. Sent down for concurrence.

GEORGE I. VINCENT, *Clerk*.

IN COMMON COUNCIL, Feb. 13, 1889.

Read twice and adopted in concurrence, and Councilmen Wentworth, Lyons and Sanborn appointed on the part of this branch.

CHAS. S. ROBERTSON, *Clerk*.

February 14, 1889.

Approved,

C. G. POPE, *Mayor*.

IN MEMORIAM.

CHARLES EDWARDS GILMAN.

BORN

IN SHREWSBURY, MASS., JAN. 1, 1809.

DIED

IN BEDFORD, MASS., FEB. 22, 1888.

Charles Edwards Gilman, born in Shrewsbury in 1809, came in 1838 to that part of Charlestown which is now Somerville. On Walnut Street, than an old range way, he purchased a considerable tract of land, and there he made his home until some years later, when, on the westerly side of Walnut Street, he built a new house. In this he lived until after the death of his wife and son in 1879 and 1881. From that time he resided in Somerville and Bedford with his daughter. Dec. 3, 1841, a meeting of the inhabitants of that part of Charlestown lying west and north-west of the bridge over the Middlesex canal at Charlestown Neck, was held in the Prospect Hill School-house, at the junction of Medford Street and Russell's Lane, (Shawmut Street), to take measures for the setting off of that part of Charlestown named, as a separate town. At this meeting Mr. Gilman was chosen the first of a committee of ten to obtain the names of those inhabitants favorable to a separation; and at a meeting of this committee on the same day he was made its chairman.

Petitions for the setting off and incorporation of the Town of Somerville, prepared by this committee, were presented to the Legislature, and March 3, 1842, an act of incorporation, as prayed for, was obtained. The first warrant for a meeting of the inhabitants of the Town of Somerville was issued March 5, 1842, by Ephraim Buttrick, Esq., of East Cambridge to Charles Edwards Gilman, an inhabitant of said

Town of Somerville, and in pursuance of this warrant, the inhabitants of the new town having been duly warned and notified, the first town meeting was called to order and the warrant read by Mr. Gilman, March 14, 1842, in the Prospect Hill School-house.

At this meeting Mr. Gilman was unanimously elected Town Clerk and annually reelected. He served in that capacity until the Town became the City. Under the act to establish the City of Somerville, approved April 14, 1871, the first City Council assembled for organization Jan. 1st, 1872, and Mr. Gilman was elected City Clerk. This office he filled until his death on the 22d of February, 1888.

He presided, as usual, at the inauguration of the City Government Jan. 2, 1888, and was at his desk during that afternoon, but for the last time. As he left the City Hall for the day he became ill and never returned to his work.

At a special meeting of the City Council held Feb. 23d to take action on his death, the following resolutions were adopted:

WHEREAS, the sad intelligence of the death of Charles E. Gilman, City Clerk of this municipality, having been received, and the City Council in joint convention duly assembled for the purpose of paying its last tribute of respect to his memory, therefore,

Resolved, That his unparalleled career of forty-six years of public service as town and city clerk was marked by a conscientious and energetic discharge of his official obligations, a courteous and affable bearing to his fellow-citizens, a genial, kind and generous impulse, and an honorable, unswerving integrity of character. He devoted his whole time to the faithful performance of the duties incident to the office which he so much loved, and it can truthfully be said that he was permitted to round out a busy life with the full measure of its usefulness. His pleasant and happy disposition endeared him in the hearts of many friends, and he will be remembered with pleasant reflections by the large circle of our citizens who have been and are now interested in the administration of town and city affairs.

Resolved, That this tribute of sympathy and esteem be conveyed to the family and relatives of the deceased, and engrossed upon the records, and in further recognition of his departed worth the City Council attend the funeral in a body.

It was voted also that the portrait of Mr. Gilman, in the Mayor and Aldermen's chamber, be draped in mourning for a period of thirty days in token of respect for his memory.

The funeral services held at the First Methodist Episcopal Church, on Bow Street, Feb. 25th, were conducted by Rev. J. W. Hamilton, the pastor, and Rev. George W. Durell, chaplain of John Abbott

GILMAN MEMORIAL.

Lodge F. and A. M. They were attended by the city government, boards and officers, by the three surviving ex-mayors, and by a large number of former town and city officials and past members of the city government, by John Abbott Lodge F. and A. M. of Somerville and delegations from Mystic Royal Arch Chapter of Medford and the Somerville Light Infantry. The following acted as pall-bearers : — Hon. Mark F. Burns, Mayor, Bernard W. Lawrence, President of the Board of Aldermen, George O. Proctor, President of the Common Council, and John F. Cole, City Treasurer, representing the city government and officers; Hon. Austin Belknap, chairman of the last board of selectmen; Joshua H. Davis, superintendent of schools; Aaron Sargent and Charles H. Guild representing the citizens; and Charles S. Lincoln and Captain Thomas Cunningham representing John Abbott Lodge.

GOVERNMENT AND OFFICERS FOR 1889.

CITY GOVERNMENT AND OFFICERS FOR 1889.

MAYOR.

CHARLES G. POPE.

Residence, Summit Avenue; office, City Hall.

ALDERMEN.

CHARLES L. NORTH, *President*.

WARD ONE.

GEORGE D. WEMYSS	.	.	.	Austin Street.
CHARLES M. HEMENWAY	.	.	.	Perkins Street.

WARD TWO.

CHARLES L. NORTH	.	.	.	High Street.
GEORGE A. KIMBALL	.	.	.	Prospect Hill Avenue.

WARD THREE.

ROBERT DUDDY	.	.	.	Bond Street.
EZRA D. SOUTHER	.	.	.	Pembroke Street.

WARD FOUR.

EDWARD H. BRADSHAW	.	.	.	Central Street.
JOHN W. CONVERSE	.	.	.	Broadway.

CLERK OF BOARD OF ALDERMEN.

GEORGE I. VINCENT.

COMMON COUNCIL.

ALBERT W. EDMANDS, *President*.

WARD ONE.

CHARLES B. SANBORN	.	.	.	.	Austin Street.
BYRON L. FRENCH	.	.	.	.	Florence Street.
CLARENCE H. WILLEY	.	.	.	.	Flint Street.
EDWIN A. WILCOX	.	.	.	.	Glen Street.

WARD TWO.

JEREMIAH J. LYONS	.	.	.	.	Washington Street.
CHARLES S. BUTTERS	.	.	.	.	Church Street.
ALLEN F. CARPENTER	.	.	.	.	Park Street.
L. ROGER WENTWORTH	.	.	.	.	Vinal Avenue.

WARD THREE.

ALVANO T. NICKERSON	.	.	.	.	Broadway.
CHARLES B. OSGOOD	.	.	.	.	Gilman Street.
WILLIAM E. PULSIFER	.	.	.	.	School Street.
FREDERICK M. KILMER	.	.	.	.	Broadway.

WARD FOUR.

ALBERT W. EDMANDS	.	.	.	.	Summer Street.
ISAAC R. WEBBER	.	.	.	.	Wallace Street.
WILLIAM A. HUNNEWELL	.	.	.	.	Cedar Street.
FRANK E. MERRILL	.	.	.	.	Fairmount Avenue.

CLERK OF COMMON COUNCIL.

CHARLES S. ROBERTSON.

JOINT STANDING COMMITTEES FOR 1889.

ACCOUNTS.—Aldermen Duddy, Kimball; Councilmen Lyons, Webber, Pulsifer.

CITY ENGINEERING.—Aldermen Bradshaw, North; Councilmen French, Butters, Merrill.

CLAIMS.—His Honor the Mayor; Alderman Hemenway; the President of the Common Council; Councilmen Kilmer, Wilcox.

FINANCE. — His Honor the Mayor; Aldermen Wemyss, Kimball; the President of the Common Council; Councilmen Wilcox, Wentworth, Pulsifer, Hunnewell.

FIRE DEPARTMENT. — Aldermen Duddy, Converse; Councilmen Sanborn, Osgood, Merrill.

FUEL AND STREET LIGHTS. — Aldermen Kimball, Hemenway; Councilmen French, Nickerson, Webber.

HIGHWAYS. — Aldermen Bradshaw, Kimball; Councilmen Willey, Carpenter, Kilmer.

LEGISLATIVE MATTERS. — His Honor the Mayor; Alderman Bradshaw; the President of the Common Council: Councilmen Wentworth, Pulsifer.

ORDINANCES. — Aldermen Souther, Hemenway; Councilmen Lyons, Osgood, Willey.

PRINTING. — Aldermen Converse, Souther; Councilmen Sanborn, Carpenter, Webber.

PUBLIC GROUNDS. — Aldermen Souther, Bradshaw; Councilmen Nickerson, Butters, Willey.

PUBLIC PROPERTY. — Aldermen Wemyss, North; Councilmen Nickerson, Hunnewell, Wentworth.

SOLDIERS' RELIEF. — Aldermen North, Duddy; Councilmen Lyons, Sanborn, Merrill.

WATER. — Aldermen Hemenway, Converse; the President of the Common Council; Councilmen French, Kilmer.

COMMITTEES OF THE BOARD OF ALDERMEN.

STANDING COMMITTEES.

ELECTIONS. — Aldermen Wemyss, Converse.

ENROLLED ORDINANCES. — Aldermen Duddy, Wemyss.

LICENSES. — Aldermen Kimball, Bradshaw.

POLICE. — His Honor the Mayor; Aldermen Hemenway, Souther.

SEWERS. — Aldermen North, Wemyss, Duddy.

STATE AID. — Aldermen Converse, North, Hemenway, Souther.

SPECIAL COMMITTEE.

BUILDING PERMITS. — Aldermen Bradshaw, Duddy.

STANDING COMMITTEES OF THE COMMON COUNCIL.

ELECTIONS AND RETURNS. — Councilmen Osgood, Carpenter, Willey.

ENROLLED ORDINANCES AND RESOLUTIONS. — Councilmen Hunnewell, Butters, Wilcox.

SCHOOL COMMITTEE.

CHARLES G. POPE, Mayor, Chairman, *ex officio*.

ALBERT W. EDMANDS, President of the Common Council, *ex officio*.

(Term, three years.)

WARD ONE.

S. NEWTON CUTLER (elected 1888) . . Pearl Street.
HORACE C. WHITE, M. D. (elected 1886) . Perkins Street.
HORACE P. HEMENWAY, M. D. (elected 1887), Perkins Street.

WARD TWO.

ALPHONSO H. CARVILL, M. D. (elected 1888), Bow Street.
JAMES F. BEARD (elected 1886) . . Prospect Hill Av.
CHARLES I. SHEPARD (elected 1887) . . Vinal Avenue.

WARD THREE.

NORMAN W. BINGHAM (elected 1888) . . School Street.
QUINCY E. DICKERMAN (elected 1886) . Central Street.
WILLIAM P. HILL (elected 1887) . . Sycamore Street.

WARD FOUR.

HORACE P. MAKECHNIE, M. D. (elected 1886), Elm Street.
MARTIN W. CARR (elected 1887) . . Craigie Street.
ADDIE B. UPHAM (elected 1888) . . Newbury Street.

CLARENCE E. MELENEY, *Superintendent and Secretary*.

PRINCIPAL ASSESSORS.

(Term, three years.)

BENJAMIN F. THOMPSON (elected 1887), <i>Chair-</i>	
<i>man</i>	Summit Avenue.
GEORGE W. HADLEY (elected 1888)	Perkins Street.
HIRAM D. SMITH (elected 1889)	Cross Street.

ASSISTANT ASSESSORS.

(Term, one year.)

WARD ONE.

GEORGE W. BARTLETT	Mount Vernon Street.
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WARD TWO.

DAVID A. SANBORN	Prospect Street.
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WARD THREE.

EDGAR T. MAYHEW	Temple Street.
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WARD FOUR.

SAMUEL T. RICHARDS	Summer Street.
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BOARD OF HEALTH.

(Term, Physician, three years; other members, two years.)

J. FRANK WELLINGTON (appointed 1889), Chairman	Vinal Avenue.
CHARLES H. CRANE (appointed 1888)	Webster Street.
ALVAH B. DEARBORN, M. D. (appointed 1889)	Office, Police Building.
<i>Clerk</i> , WILLIAM P. MITCHELL,	Office, City Hall.
<i>Inspector</i> , CALEB A. PAGE	Webster Avenue.

OVERSEERS OF THE POOR.

CHARLES G. POPE, *Mayor, Chairman, ex officio.*

HERBERT E. HILL, (elected 1886 for
four years) Mt. Vernon Street.

EDWARD B. WEST (elected 1888 for
unexpired term) Prescott Street.

DANIEL C. STILLSON (elected 1888 for
unexpired term) Tennyson Street.

CHARLES G. BRETT (elected 1885 for
four years) Hall Street.

Agent, CHARLES C. FOLSOM, Office, Police Building, Bow Street.

Secretary, FRANK W. KAAAN, Office, Police Building, Bow Street.

REGISTRARS OF VOTERS.

GEORGE I. VINCENT, *City Clerk.*

(Term, three years.)

CROMWELL G. ROWELL (appointed 1888), *Chairman.*

OTIS M. CURRIER (appointed 1887).

SAMUEL G. A. TWYCross (appointed 1886).

SOMERVILLE MYSTIC WATER BOARD.

(Term, one year.)

J. ORLIN HAYDEN, *President* . Hill Building, Union Square.

ADNA C. WINNING Fremont Street.

RICHARD DOWD Charles Street.

WALTER C. MENTZER Cedar Street.

SAMUEL W. HOLT Washington Street.

Clerk, FREDERICK W. STONE.

Superintendent of Water Works, NATHANIEL DENNETT.

Office, Prospect Street, corner Somerville Avenue.

TRUSTEES OF THE PUBLIC LIBRARY.

(Term, three years.)

CHARLES S. LINCOLN (elected 1888),	<i>Prest.</i> ,	Laurel Street.
J. HENRY FLITNER (elected 1889),	<i>Sec'y</i> ,	Day Street,
GEORGE A. BRUCE (elected 1889)	.	Highland Avenue.
WILLIAM E. WELD (elected 1887)	.	Summer Street.
JAMES E. WHITAKER (elected 1887)	.	Sycamore Street.
SANFORD HANSCOM, M. D. (elected 1887)	.	Webster Street.
CHRISTOPHER E. RYMES (elected 1888)	.	Summer Street.
ELIJAH C. CLARK (elected 1889)	.	Rush Street.
CHARLES H. BROWN (elected 1889 for un- expired term)	.	Sycamore Street.

Librarian, HARRIET A. ADAMS.

CITY CLERK AND CLERK OF BOARD OF ALDERMEN.

GEORGE I. VINCENT. Office, City Hall.

CITY TREASURER AND COLLECTOR OF TAXES.

JOHN F. COLE. Office, City Hall.

CITY MESSENGER.

JAIRUS MANN. Office, City Hall.

CITY SOLICITOR.

SELWYN Z. BOWMAN. Office, 23 Court Street, Boston.

CITY AUDITOR.

DOUGLAS FRAZAR. Office, City Hall.

CITY ENGINEER.

HORACE L. EATON. Office, City Hall.

SUPERINTENDENT OF STREETS.

FRANK G. WILLIAMS, Albion Street. Office, City Hall.

SUPERINTENDENT OF PUBLIC BUILDINGS AND LIGHTS.

THOMAS R. ROULSTONE. Office, City Hall.

SUPERINTENDENT OF TELEGRAPH AND TELEPHONE LINES.

JAMES R. HOPKINS, Summit Avenue.

CHIEF OF POLICE.

MELVILLE C. PARKHURST. Office, Police Station, Bow Street.

CHIEF ENGINEER OF FIRE DEPARTMENT.

JAMES R. HOPKINS. Office, Engine House, Highland Avenue.

INSPECTOR OF BUILDINGS.

JAMES R. HOPKINS, Summit Avenue.

INSPECTOR OF MILK AND VINEGAR.

THOMAS CUNNINGHAM, Oak Street.

CITY PHYSICIAN.

ALVAH B. DEARBORN, M. D., Bow Street.

CLERK OF ASSESSORS AND COMMITTEES.

WILLIAM P. MITCHELL. Office, City Hall.

ASSISTANT CLERK OF ASSESSORS AND COMMITTEES.

ALBERT B. FALES. Office, City Hall.

CONSTABLES.

JAIRUS MANN.	WILLIAM D. HAYDEN.
ROBERT R. PERRY.	SAMUEL R. DOW.
CHARLES C. FOLSOM.	JOSEPH J. GILES.
EDWARD MCGARR.	GEORGE CULLIS.
CHRISTOPHER C. CAVANAGH.	

FIELD DRIVERS.

SAMUEL R. DOW.	MYRON H. KINSLEY.
JOHN E. FULLER.	CHARLES S. THRASHER.
PHINEAS W. SKINNER.	GEORGE W. BEAN.
FRANCIS A. PERKINS.	CHARLES L. ELLIS.

FENCE VIEWERS.

DAVID A. SANBORN.	CHARLES A. PEARSON.
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POUND KEEPER.

CHARLES A. SMALL.

SEALER OF WEIGHTS AND MEASURES.

AMMIEL COLMAN, 34 Marshall Street.

MEASURER OF WOOD AND BARK.

SAMUEL T. LITTLEFIELD.

WEIGHERS OF COAL.

JOHN CRAIG.	D. WARNER DANFORTH.
GEORGE K. WALCOTT.	

MEASURER OF GRAIN.

JOHN CRAIG.

WEIGHER OF HAY AND STRAW.

JOHN CRAIG.

UNDERTAKERS.

WILLIAM A. FLAHERTY.	PATRICK H. RAFFERTY
EDWARD H. MARSH.	THOMAS J. BARKER.
ALFRED E. MANN.	PATRICK RAFFERTY.
HORACE D. RUNEY.	

POLICE DEPARTMENT.

MELVILLE C. PARKHURST, *Chief*.

ROBERT R. PERRY, <i>Captain</i> .	SAMUEL R. DOW, <i>Sergeant</i> .
EDWARD MCGARR, <i>Sergeant</i> .	C. C. CAVANAGH, <i>Sergeant</i> .
JOHN E. FULLER.	PHINEAS W. SKINNER.
ALBION L. STAPLES.	SAMUEL A. BROWN.
JUDSON W. OLIVER.	JOHN HAFFORD.
GEORGE W. BEAN.	IVAN LAUGHTON.
GEORGE L. SMITH.	MYRON H. KINSLEY.
EDWARD M. CARTER.	GEORGE A. BODGE.
JOHN F. JOHNSON.	DENNIS KELLY.
EUGENE A. CARTER.	GEORGE H. CARLETON.
EDWARD E. HAMBLIN.	HUBERT H. MILLER.
JAMES F. FOLEY.	FRANCIS A. PERKINS.
CHARLES L. ELLIS.	CHARLES S. THRASHER.
CHARLES E. WOODMAN.	WILLIAM H. JOHNSON.
ARTHUR E. KEATING.	JOHN G. KNIGHT.
WILLIAM J. DAYKIN.	

MELVILLE C. PARKHURST, *Lock-up Keeper*.

MEETINGS.

BOARD OF ALDERMEN.

Second and fourth Wednesday evenings of each month.

COMMON COUNCIL.

Thursday evenings following the second and fourth Wednesdays
of each month.

SCHOOL COMMITTEE.

Last Monday evening of each month.

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